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An Ever Closer Union: An Investigation Of Accounting Measurement And Timing In The European Union

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AN EVER CLOSER UNION: AN INVESTIGATION OF
ACCOUNTING MEASUREMENT AND TIMING
IN THE EUROPEAN UNION

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Dedication

This dissertation is dedicated to my sons, Elden and Enthony. Thank you for being the best kids I could ask for and coming on this journey with me.

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ACCOUNTING MEASUREMENT AND TIMING
IN THE EUROPEAN UNION

by

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DISSERTATION

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Abstract

This paper explores whether the implementation of a unified set of accounting standards, International Financial Reporting Standards (IFRS) is able to overcome prior reporting behaviors by using multiple measures of accounting conservatism, both conditional and unconditional, to proxy for changes in accounting outcomes. Conservatism makes a good proxy for changes in accounting outcomes because it is used as a mechanism to protect key stakeholders and the level of conservatism differs in an international context (Gray, 1988). Countries from different legal systems have different institutional structures and different reporting incentives. Therefore, the sample is bifurcated and regressions are also run based on legal system classifications. I find that accounting conservatism differs by country classification before and after IFRS, but the difference between classifications decrease after the implementation of IFRS. However, IFRS is not the only thing driving this change in behavior. The Market Abuse Directive, a stricter enforcement mechanism in the European Union, has also been instrumental in affecting observable differences in reporting behavior.

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Chapter 1

Accounting Conservatism in the EU: An Introduction

The European Union (EU), according to their official website, is a “unique economic and political partnership.”¹ The EU has taken many steps to further these partnerships between members. This idea of a united Europe was first promulgated after World War II but the Maastricht Treaty of 1992 formally implemented the European Union which was officially established in 1993 (Dinan, 2005). Kugelmann (1994) describes the EU as built upon three pillars that were used as a framework to unify the member states: an economic and monetary union, common foreign and security policy, and home affairs and judicial cooperation. The economic and monetary pillar has been prominent in recent history as parts of the EU implemented one currency, the Euro, for financial markets in 1999 and as a physical currency as of January 1, 2002. In addition, the EU agreed to have a unified monetary policy across these countries. The major stated benefit of a single currency was lower transaction costs and better market integration between Eurozone members (Kugelmann, 1994).

A recent step to further this partnership has been the mandatory introduction of International Financial Reporting Standards (IFRS) for the consolidated or group accounts of all publicly traded companies in the European Union as of January 1, 2005. This widespread mandatory adoption of a common set of accounting standards has similar potential benefits as the adoption of a common currency. The largest benefit supporters used to justify mandatory adoption was that it increased comparability and transparency for firms listed on financial markets. Increased comparability and transparency should lower the cost of business via improved communication with those who use the information in financial statements (Schadewitz and Vieru, 2008) and lower transaction costs (Ball,

¹ This definitional role of the EU is from Europa.eu which is the official website of the European Union. The website is run by the European Commission.

2006). Doing so should increase efficiency and be more cost-effective than having to report using multiple sets of standards for firms in multiple markets. Supporters also cite increased investor confidence, which should ultimately lower the cost of capital for EU firms. The overall effect of these benefits should help increase the competitiveness of firms in the EU, which in turn should lead to macroeconomic effects like improving the economies of the countries involved, increasing competition with the US, and increased market efficiency (Jeanjean and Stolowy, 2008).

The introduction of a mandatory set of accounting standards does not mean that it will elicit the same behavior across countries in the same way a common currency might. The discretionary nature of accounting and the variance in the reporting needs of different stakeholders may be firm- or country-specific and are likely to influence the degree to which similar behavior is achieved (Doupnik and Tsakumis, 2004). All standards incorporate a mixture of rules and principles and because judgment is required for financial reporting, there will be some differences in observed reporting behavior. In addition, different countries have different legal and institutional settings that influence reporting behavior (La Porta, Lopez-De-Silanes, Shleifer, and Vishny, 1997; 1998; Zeff, 2007). In this paper, I explore whether the implementation of a unified set of accounting standards has been able to overcome prior reporting behaviors by using multiple measures of accounting conservatism, both conditional and unconditional, to proxy for changes in accounting outcomes. Conservatism makes a good proxy for changes in accounting outcomes because it is used as a mechanism to protect key stakeholders and the level of conservatism differs in an international context (Gray, 1988).

1.1 A Brief History of IFRS

The idea of universal accounting standards that apply to multiple countries is not new. As discussed in the following paragraphs, both the EU and other developed countries have wrestled with the idea of a common framework to guide financial reporting (Emenyonu and Gray, 1996). The potential benefits of a

unified set of standards are numerous. Firms can see a reduction in their cost of capital in response to a reduction in perceived investment risk. A common standard also lowers reporting costs for firms that are cross-listed by eliminating the costs that arise from having to prepare multiple financial statements for each specific market. Confusion is eliminated for stakeholders from different measures of financial position and performance across different countries, encouraging international investment, and more efficient allocation of savings (Sharpe, 1998).

<i>Year</i>	<i>Event</i>
1950s	Interest in an international standard grows after WWII due closer economic ties and increased capital flows between countries
1966	Proposal to establish an International Study Group with participation from the Institute of Chartered Accountants of England and Wales (ICAEW), American Institute of Certified Public Accountants (AICPA), and Canadian Institute of Chartered Accountants (CICA)
1967	Accountants International Study Group (AISG) was founded. They published papers which ultimately led to standards.
1973	International Accounting Standards Committee (IASC) formed as the first international standard setting body. The IASC released IAS from 1973 to 2000. Until 2002, only a few countries used IAS.
1975	First International Accounting Standard (IAS) published
1978	Fourth Directive established by the Council of the European Community
1983	Seventh Directive established by the Council of the European Community
1987	IASC issued 25 standards by 1987. These standards were vague and allowed alternative treatments for the same transaction. To counter this, IASB starts a comparability and improvement project.
1988	FASB becomes a member of IASC Consulting Group and an Observer at IASC.
1997	Standing Interpretations Committee (SIC) established to give authoritative guidance and stop widespread variation in practice. Their interpretations were published between 1997 and 2001.
2000	Final IAS published.

2000	International Organisation of Securities Commissions (IOSCO) endorses IAS for use in cross-border listings.
2000	US Securities and Exchange Commission (SEC) issues concept release on the acceptability of IAS.
2000	ICAEW supports steps to ensure that IAS are effective in Europe.
2001	IASC is restructured and replaced by the International Accounting Standards Board (IASB). The IASB acts as an independent standard setter. They adopt prior standard by the IASC but new standards would be published under the name International Financial Reporting Standards (IFRS).
2001	SIC renamed International Financial Reporting Interpretations (IFRIC). Instead of releases that existed under the SIC, they released abstracts.
2002	European Council of Ministers approved regulation that would require all EU listed companies to prepare accounts based on IFRS in 2005.
2002	FASB and IASB work together to improve and converge US Generally Accepted Accounting Principles (GAAP) and IFRS.
2003	First IFRS, IFRS 1: First-time Adoption of International Financial Reporting Standards, published.
2003	EU Directive 2003/6/EC issued.
2004	The Transparency Directive was passed to be implemented by January 2007.
2005	IFRS becomes mandatory for all publicly traded firms in the EU.
2009	Over 100 countries require or permit IFRS.

Information on the history of IAS is from the Institute of Chartered Accountants in England and Wales (ICAEW) and can be found on their website at: <http://www.icaew.com/en/library/subject-gateways/accounting-standards/knowledge-guide-to-international-accounting-standards#history> and from FASB: <http://www.fasb.org/cs/ContentServer?c=Page&pagename=FASB%2FPage%2FSectionPage&cid=1176156304264>

Figure 1: History of IAS (International Accounting Standards)

Figure 1 above shows key developments of IFRS in the European Union that span from the original concept of accounting cooperation between countries, to the beginning of International Accounting Standards (IAS), to the ultimate mandatory adoption of IFRS in the European Union. The move towards one accounting set of standards has its origin in the aftermath of World War II. Crafts (1995) refers to

the years from 1950 to 1973 as the “Golden Age” of economic growth in Western Europe because of the lower barriers to trade and the acceptance of free market ideals that promoted cross border activity between the countries of this region. The UK was the only future EU country² in Western Europe that did not experience a historical high GDP growth rate during this time³. Multinational companies rose in prominence and drove much of the GDP growth of that time (Mueller, 1963). Midway through this time period (in 1996) and as a result of lobbying by multinationals, there was a concerted effort to address the needs of multinational companies in different accounting jurisdictions. A common accounting standard makes it easier for firms to engage in international trade and international investment (Kraayenhof, 1960). Therefore, one standard can help facilitate this growth for multinationals. The Institute of Chartered Accountants of England and Wales (ICAEW), along with the American Institute of Public Accountants (AICPA) and the Canadian Institute of Chartered Accountants (CICA) proposed to study differences in accounting systems and to discuss ways to meet the growing needs of multinationals (Baker and Wallage, 2000). This led to the formation of the Accountant International Study Group (AISG) in 1967. The purpose of the AISG was to meet on a bi-yearly basis to discuss differences between their respective accounting standards and encourage private standard setting as a way to deal with differences as opposed to creating one standard for the countries in the group (Botzem and Quack, 2005).

The International Accounting Standards Committee (IASC) was formed in 1973 and replaced the AISG. Hopwood (1994) describes the original impetus to the formation of the IASC as the UK’s entrance into European Economic Community in 1972. The IASC was a response to what the UK

² Norway also did not experience high levels of GDP growth. However, Norway is not a member of the European Union. As a result of this, their adoption process of IFRS has a different level of approval that is required before an accounting standard becomes adopted (information obtained from the Norwegian Accounting Standards Board (NASB) <http://www.regnskapsstiftelsen.no/a9084301/english>)

³ Possible reasons given by Crafts (1995) are a higher initial income level prior to World War II, a historically lower level of investment compared to other Western European countries, higher marginal tax rates, and lower job skills in the British labor market, inefficient use of physical or human capital, or an interrelationship between some of these variables.

thought would be the imposition of Continental European accounting on their accounting system⁴. The IASC was comprised of the national accounting bodies of the original AISG members along with the national accounting bodies of Australia, France, Germany, Japan, Mexico, the Netherlands, and Ireland (Camfferman and Zeff, 2006). The first IAS, *Disclosure of Accounting Policies*, was issued in 1975 and prescribed the requirements for financial statements, set forth the minimum content to report, and defined the financial statements that were required (Deloitte IAS Plus). The IASC was responsible for issuing IASs. The IASC issued International Accounting Standards (IAS) from 1973 to 2002 and by 1987, there were 25 IASs issued.

The EU at this time was pursuing its own path to common financial reporting via the fourth and seventh EU directives. The directives set forth requirements for all member states in the EU. Directives tell the end result that is mandated but each country can choose how to reach the end result (Joos and Lang, 1994). This process can often take a long time. For example, the fourth directive was issued in 1978 and did not require members to comply until 1991 (Flower, 1997). This directive was required for all limited liability companies and it set forth the use of a “true and fair view” requirement, rules for measurement, formatting requirements for financial statements, and additional disclosure needed for all firms in countries that are governed by the European Commission (Joos and Lang, 1994). The seventh directive was issued in 1983 and was created to make-up for a deficiency in the fourth directive which only addressed single company accounts. The seventh directive was written for consolidated accounts and defined which companies would need to use consolidated accounts.

⁴ The UK officially joined in 1973.

1.2 Lack of Widespread Acceptance of IAS

IAS did not reach large scale acceptance during these years for a variety of reasons. Even though Western Europe was well represented in the IASC, IAS were not mandatory and countries were permitted to decide at the country level how, and to what extent, they wished to use IAS. For example, German firms were allowed to report their financial statements using U.S. GAAP, German GAAP, or IAS (Bartov, Goldberg, and Kim, 2005). Doupnik and Taylor (1985) found that in 1979 and 1983, Europe had less compliance with IAS compared to other geographic areas that had some form of IAS usage. One of the biggest problems, and the greatest hindrance to the acceptability of IAS standards, was that the IAS allowed so much discretion and so many choices such that there was still not true comparability between financial statements in different countries. The IASC, to address the issue of too much discretion and choices, published a “Framework for the Preparation and Presentation of Financial Statements” in 1989 (IASC, 1989) and the “Comparability/Improvement Project” in 1990 (IASC 1990). As a result of this process, 21 choices were eliminated in 10 standards (Garrido, León and Zorio, 2002).

The voluntary nature of IAS also limited its ability to be a unifying accounting standard. It was up to each individual country if they wanted to adopt IAS and since adoption was voluntary, firms adopted IAS at different levels. Auditors at that time would state that the financial statements complied with IASs even when they did not comply. By 1995, only 275 listed EU companies claimed to file under IAS (EU MEMO/00/34, 2002). Further, the President of the International Federation of Accountants (IFAC) criticized auditors’ assertions of IAS compliance for the firms that filed using IAS. For example, Street et al (1999) examine the financial statements of firms claiming to be and found that (pp. 46), “the degree of compliance is mixed and selective...The extent of noncompliance discovered by our research supports IFAC’s view that auditors are asserting that financial statements comply with IASs when the accounting policies footnotes and other notes show otherwise.” Thus, the voluntary nature of IAS and

the amount of non-compliance of firms who claimed compliance created a climate where if there were to be a unified standard, it would need to come from outside of IAS.

A standards board needed to be created that was autonomous to have countries willingly agree to one standard. Therefore, in 2001 the IASC was restructured and replaced by the International Accounting Standards Board (IASB). The role of the IASB was to be an independent standard setter. They adopted prior standards by the IASC but new standards would be published under the name International Financial Reporting Standards (IFRS) (ICAEW, 2013).

A key precursor to the creation of the IASB was the possibility of acceptance by a major economic group in the form of the EU. Following the successful introduction of the Euro in 1995⁵, the EU council of ministers viewed increasing integration between member countries as generating benefits for firms and consumers in the EU. The Lisbon European Council meeting in March 2000 laid out a vision for a new, more financially integrated, EU. The next logical step for integration would be to unify financial markets to help more efficiently allocate financial resources for investors. A level playing field for all firms in the EU became a necessity. This meeting set the foundation for a mandatory, unified accounting system.

Even though IAS were not adopted on a widespread basis prior to that point, they did lay the foundation for the later switch to a different unified standard. US GAAP was not considered a viable alternative for a common standard because no country except for the US gave input on the development of standards. The level of litigation in the US also affected the possibility of US GAAP becoming the standard of the EU since the litigation environment in the U.S. creates an atmosphere for a heavy rule-based, not principle-based accounting system. In addition, since the SEC regulates the application of GAAP, they would cede control of their accounting enforcement to the US (EU MEMO/00/34, 2000).

⁵ The name Euro was officially introduced at the Madrid European Council in 1995 (Madrid European Council, 1995). It became a virtual currency for accounting purposes in 1999 and notes and coins began to circulate in 2002 (European Commission, 2014.).

International Accounting Standards became the official standard of the European Union with Regulation (EC, 2002) No 1606/2002 of the European Parliament and of the Council with January 1, 2005 set as the future mandatory adoption date. The first IFRS was published in June 2003 under the name IFRS 1: First-time Adoption of International Financial Reporting Standards (ICAEW, 2013). All publicly traded firms in the EU were informed in 2002 that they would have to report using IFRS by the mandatory adoption date. Some firms switched their accounting system prior to 2005 while other firms waited until the 2005 deadline.

As the IASB hoped, the adoption of IFRS represents the first truly successful effort by a large block of countries to use the same standard across multiple countries with the goal of increasing comparability across different capital markets. This mandated adoption across multiple countries at the same moment in time allows for larger sample testing of the effect of IFRS implementation on accounting behavior. At the same time, European countries are more homogenous compared to countries that are not from the same geographic region and do not share the same commitment to closer economic unification. This allows researchers to hold constant certain macroeconomic factors such as the level of development.

The remainder of the dissertation explores these effects of the implementation of IFRS on reporting behavior in the European Union by reviewing the literature and developing hypotheses, describing the methodology and sample, reviewing the univariate statistics, the multivariate results, performing robustness tests, and drawing conclusions based on the results.

Chapter 2

Literature Review and Hypothesis Development

2.1 Reasons for Accounting Conservatism

The idea of accounting conservatism is long-standing. Bliss (1924) defines the concept as “anticipate no profits but anticipate all losses” while Basu (1997) “interprets this rule as denoting accountants’ tendency to require a higher degree of verification to recognize good news as gains than to recognize bad news as losses.” There are two types of accounting conservatism that are commonly discussed in the extant literature. Both types of conservatism, conditional and unconditional,⁶ exist for many of the same reasons such as litigation, providing information to stakeholders, contracting, and the political costs of standard setters and regulators. Watts (2003a, 2003b) defines the main reasons for accounting conservatism. Conservatism exists for debt contracting purposes or as a substitute for contracts⁷, to alleviate litigation concerns, reduce taxation, and limit the political costs of actions by standard setters and regulators. All of these reasons really arise as a way to deal with information asymmetry. Akerlof (1970), in his seminal paper on information asymmetry, describes how institutions can give rise to deal with information uncertainty and counteract the effect of uncertain quality. Accounting conservatism acts as one such mechanism for leveling the playing field between stakeholders and a firm since stakeholders do not have the same level of information as those within the firm which creates uncertainty for stakeholders. Firms act in a more prudent manner to signal to stakeholders that they are

⁶ Beaver and Ryan (2005) coined the term unconditional and conditional. Other names associated with unconditional conservatism are ex-ante conservatism and balance-sheet conservatism. Early international literature has also called an unconditionally conservative country pessimistic. Conditional conservatism is also referred to as ex-post conservatism and income-statement conservatism.

⁷ Conservatism is a mechanism that is used as a substitute for covenants in debt contracting. Covenants still exist, but higher levels of conservatism on the balance sheet are associated with a firm having fewer covenants. In addition, the covenants that do exist have more slack (Sunder, Sunder, and Zhang, 2011). Conservatism is linked to properties of the loans themselves. For example, more conservative firms receive better interest rates (Zhang, 2008). Debt contracts themselves treat gains and losses differently. They are sensitive to losses causing triggers to violate the covenants, not gains. This leads to more effective monitoring of debt contracts by lenders (Sunder et al., 2011). Conservatism acts as a lower bound of behavior. Managers are not going to undertake projects that have a risk of them ceding power (Bushman, Piotroski, and Smith, 2011).

acting more cautiously, which allows stakeholders to make comparisons across different companies for easier decision-making purposes. Empirical results are consistent with this information asymmetry role for conservatism (Watts, 2003a). Conservative reporting can be a compliment to high levels of information asymmetry. Changes in levels of information asymmetry lead to changes in conservatism. For example, Goh and Li (2011) find that strong internal controls lead to greater levels of conservatism. Conservatism is used to counter the information asymmetry by limiting managers' ability to manipulate accounting information for their own gain to the detriment of shareholders (LaFond and Watts, 2008). This is consistent with findings by Ahmed and Duellman (2013) that overconfident managers are less conservative. Overconfident managers are more willing to manipulate accounting information by delaying the recognition of income decreasing events or overvaluing the value of assets like inventory. Ultimately, conservatism is more than just a property of reported accounting numbers because it is interlinked with internal motivations and external motivations caused by country specific factors such as enforcement and institutions.

At its core, unconditional conservatism is about measurement, how a firm chooses to recognize certain accounting information. There is a set rule in place so that when something occurs there is a prescribed method of action. This is an ex-ante decision and does not differ based on if the event is deemed good or bad. Typically this form of conservatism results in the understatement in the book value of assets (Sunder et al., 2011). The eventual effect on shareholder's equity is that unconditional conservatism creates a permanent understatement of shareholder's equity as well (Feltham and Ohlson, 1995). Unconditional conservatism does not require a differential response based on the nature of the accounting event. A rule is followed based on a common practice within a firm, country, culture, or industry.

A common example of this form of conservatism can be seen in the use of LIFO. LIFO creates unconditional conservative accounting in times of rising prices by carrying inventory at lower dollar

amounts on the balance sheet than if they were recorded using FIFO or average cost (Penman and Zhang, 2002; Chanchani and Willett, 2004). This allows for income to be smoothed when times aren't as good since once the goods are sold, their manufacturing costs can be recognized (Penman and Zhang, 2002). At that point, the expenses are artificially higher than they would have been under other accounting choices so earnings are lower than they would be without these conservative numbers. When times are bad, managers then have the flexibility to smooth earnings since their income was too low in the past. This smoothing behavior of unconditional conservatism (no matter the accounting reason behind the conservatism) also acts as a restraint against aggressive recognition of gains (Iatridis, 2011). Other examples of this form of conservatism are the immediate expensing of most intangible costs, accelerated depreciation of PPE, historical cost accounting for positive NPV projects, and "known policies that consistently overestimate allowances for doubtful accounts, sales returns or warranty liabilities" (Penman and Zhang, 2002). In this sense, unconditional conservatism can be thought of as an ex-ante form of measurement because it prescribes behavior before the accounting event whereas conditional conservatism acts as an ex-post form of measurement where the decision is not made until after the economic event.

Conditional conservatism is an ex-post decision on when to recognize an accounting event conditional on the type of event that occurs. Hence, unconditional conservatism is about measurement (what rules are in place on how to measure accounting information), while the focus of conditional conservatism is recognition (when to recognize accounting information). Conditional conservatism happens after the accounting event and the action that is taken is conditional on if the event is good news or bad news. Conditional conservatism lends itself more to the idea of timing because it is about when to recognize something. Writing down the book value of an asset if something happens that diminishes the value but not writing it up if the value increases, recognizing losses before gains, and using the lower of cost or market for inventory are all examples of conditional conservatism. The timing is dependent on if

good or bad news and bad news will be recognized sooner than good news (asymmetric timeliness) (Beaver and Ryan, 2005).

The relation between the two forms is not clear. Researchers have found a negative relationship between the two forms of conservatism but thus far, no one has been able to give a theoretical reason for the observed behavior (Roychowdry and Watts, 2007). The closest description of the relationship between the two is that conditional conservatism increases the contracting efficiency of reported accounting information whereas unconditional conservatism anticipates future bad news to meet managerial objectives of fiduciary responsibility (Iatridis, 2011).

2.2 Factors Affecting Reporting Consistency

Even under the same accounting standard, firms may still have unique reporting behaviors based on the institutional environment of a country. Three key reasons for different financial reporting between countries include taxation, the level of book-tax conformity, and litigation. There still may be a lack of comparability driven by these considerations that will exist between firms from different countries.

There are tax differences between countries even if they are classified under the same La Porta (La Porta et al., 1997; La Porta et al., 1998) code-common distinction (Ball, Kothari, and Robin, 2000). For example, the Greek tax code influences how firms calculate their corporate income (Tsakumis, 2007). Tax differences can drive differences in the way certain business transactions are designed. For example, the airline industry in the U.S. uses long-term leasing for aircraft so the planes are not owned by the airlines. Therefore, the aircraft do not appear on their balance sheets (Zeff, 2007).

All countries have some degree of book-tax conformity and the different levels will drive firm behavior to varying degrees (Soderstrom and Sun, 2007; Ball, 1995). A country's level of book tax conformity directly affects the actions of firms and those who monitor those firms. For example, Burgstahler, Hail, and Leuz (2006) find that if a country has high book-tax conformity, the firms within

that country will tend to manage earnings to lower their taxable income. Basu, Hwang, and Jan, (1998) find that in a country that has low book-tax conformity, there are more analysts' forecast errors. Firms in countries with high book-tax conformity will report very differently from those with low book-tax conformity. A unified standard like IFRS does not force countries to also have a unified tax policy. Therefore, book-tax conformity may lose explanatory power for driving conservatism in the EU since all EU countries have maintained their original accounting standards which are still used to prepare financial statements for tax purposes within their own country.

Litigation also has a role in reporting behavior. Conservative accounting practices began to increase when auditors began to have more exposure to legal liability. According to Watts (2003a), the litigation environment for shareholders began to change in the second half of the twentieth century and conservatism arose as a way to deal with this new stakeholder need without having to resort to the legal system. Courts also play a role by enforcing greater levels of conservatism as contracting parties began to demand more conservative behavior by firms (Basu, 1997). Since shareholders feel like they have recourse, they are more willing to invest in countries with stronger litigation risk. In turn, this creates stronger equity markets in countries with stronger shareholder protection.

2.3 Differences Between Countries

Various reasons have been used to describe why there are differences in the reporting behavior of firms across different countries. Stulz and Williamson (2003) use the religion and language of a nation to explain differences in investor protection. Gray (1988) uses Hofstede's cultural dimensions (1984) while Licht, Goldschmidt, and Schwartz (2005) use both Hofstede's and Schwartz's (1994) cultural dimensions. Nobes (1983) uses a classification he derives called microeconomic and macroeconomic

systems. But by far, the most commonly studied reason for inter-country differences is legal system. Within this genre the most cited article is La Porta et al. (1997, 1998)⁸.

La Porta et al. (1997, 1998) trace all legal systems back to two main categories, common law and civil (or code law). Common law is based on the British legal tradition⁹ and the law is established by judges and then incorporated into legislation. Code law is based on Roman law and is established by scholars and legislation made tradition. The Roman legal systems can further be sub-divided into three distinct branches, French, Scandinavian, and German legal traditions (La Porta et al., 1997). These legal traditions have been exported to the rest of the world through various channels such as, “conquest, imperialism, outright borrowing, and more subtle imitation” (La Porta et al., 1998, pp. 1115). La Porta, Lopez-de-Silanes, and Shleifer (2008) find that common law countries have less legal formalism, higher judicial tenure, more protection for outside investors, and have a higher constitutional acceptance of case law. Even though no two countries are exactly alike, there are enough commonalities between countries classified within a system to make generalizations.

Ding, Hope, Jeanjean, and Stolowy (2007) and Soderstrom and Sun (2007) note that the legal system affects the way accounting standards are developed. In common law countries (and currently with IFRS), accounting standards are set by independent, private organizations like FASB (and the IASB). Code law countries allow standards to be developed by commercial law and enforced by the courts. Code law countries typically have a strong tie between their tax and financial reporting systems so there are incentives to understate profits while common law countries have lower levels of book-tax conformity (Joos and Lang, 1994)¹⁰. For example, the earnings/price ratio is lower in countries like

⁸ LaPorta, Lopez-de-Silanes, and Shleifer (2008) acknowledge that for legal systems to persist, that culture and ideologies must affect the legal system.

⁹ Common law countries are also sometimes referenced as English law countries because the origination of common law behavior was based on the British legal tradition.

¹⁰ There is a weaker link between the use of IFRS, a common law based accounting standard, and book-tax conformity because all countries in the EU have also kept their original home GAAP which is then used for reporting income for the purpose of taxes. Therefore, these countries may still have a high book-tax conformity with their home GAAP while not having a high book-tax conformity with IFRS.

Japan and Germany (code law countries) due to the high book-tax conformity, focus on creditor rights, and more conservative measures of income. In addition, regulating reserves is considered less of a priority which is consistent with code law countries more likely to engage in income smoothing (Land and Lang, 2002).

Common law countries give both shareholders and creditors strong rights. The legal protection of shareholders acts as a substitute for ownership concentration; therefore, French legal system countries, with the lowest creditor rights, tend to have higher ownership concentration (La Porta et al., 1998). This is partially consistent with Ball, Robin, and Sadka (2008) who find that debt markets shape timely financial reporting and helps explain the greater conditional conservatism of common law countries because lenders are more willing to engage in contractual lending when their rights are more strongly protected within the legal system of a country.

Common law countries protect investors the most, followed by Scandinavian code legal countries, German code legal countries, and lastly, French civil law countries. Creditor rights vary slightly within broad classifications. For example, German code law countries have higher levels of creditor rights. France has the lowest level of creditor rights. These institutional structures coupled with the legal system all affect the scope of capital markets (La Porta et al., 1997). Institutional structures can change over time but the relative rankings between countries has not changed during the twentieth century. Laws also change over time, but the base fundamentals of a legal system remain and continue to shape economic outcomes (La Porta et al., 2008). Therefore, just changing something like an accounting standard may not be enough to induce changes in behavior.

Even though the Netherlands has been classified as code law in many papers (and by La Porta et al. 1997, 1998), other papers have classified it as common law or describe it being more similar to other common law countries than code law countries, especially as it pertains to accounting properties. Nobes (1983) classifies countries as “macro” or “micro” based on the financial reporting practices for public

companies. The Netherlands falls in the “micro” group which also includes the UK, Ireland, Australia, New Zealand, and Canada. Alford, Jones, Leftwich, and Zmijewski (1993), for instance, find that Australia, France, the Netherlands, and the UK have more informative and more timely earnings than the US while Denmark, Germany, Italy, Singapore and Sweden are less timely than the U.S.¹¹ Ball (1995) notes that the group he classifies as common law consists primarily of former British Colonies (US, Canada, Ireland, etc.)¹². However, he points out that the nations that engaged in early building of multinational corporations, specifically the Netherlands, also took on this common law style of accounting. Ball et al. (2000) use a classification scheme by Mueller, Gernon, and Meek (1997) and classify firms as British-American (common law) or Continental (code law). They put the Netherlands in the common group along with Hong Kong, India, Ireland, Malaysia, New Zealand, Singapore, and South African. Arce and Mora (2002) state that the Netherlands are typically included in the Anglo-American (common) group because of the characteristics of their accounting system even though the Netherlands has a code law oriented legal system. This is because of the large amount of equity financing in the Netherlands which means that the financial statements for Dutch companies need to meet the needs of investors more than a typical code law country. The end result is that earnings become more value relevant than book value for firms in the Netherlands. García Lara, García Osma, and Mora (2005) point out that common law countries have more earnings (conditional) conservatism compared to all continental European countries except for the Netherlands. The UK, Ireland, and the Netherlands, prior to the mandatory IFRS adoption, all had national GAAPs that complied the most closely to IAS (Haller, 2002). Raonic, McLeay, and Asimakopoulous (2004) look at institutional factors and finds that firms listed on the New York Stock Exchange (NYSE) and Amsterdam Stock Exchange are insensitive to institutional factors. They posit this may be due to the fact that NYSE has the highest disclosure

¹¹ Belgium, Canada, Hong Kong, Ireland, Japan, Norway, South Africa, and Sweden have inconclusive results. They are not consistently more informative and more timely or less informative and less timely than the U.S. Hence, their value relevance and timeliness are not consistent like the other countries in the sample.

¹² Ball (1995) uses the term Anglo-American instead of common law to refer to the same set of countries.

standards and listing requirements while the Dutch exchange has the next highest. Sellhorn and Gornik-Tomaszewski (2006) point out that the UK, Ireland, and the Netherlands all have strong equity types of financing.

For ultimate comparability, the standards need to be enforced the same way across countries sharing a standard (Bradshaw and Miller, 2008; Land and Lang, 2002). If enforcement is lax in a country, earnings will be opaque which harms the notion of comparability (Bhattacharya, Daouk, and Welker, 2003). Ball et al. (2000) contend that accounting standards do not determine actual accounting practice, and instead, practice is based on incentives such as enforcement. Nobes (2006) points out that the code-common distinction may still exist after the implementation of IFRS because monitoring and enforcement are national. If there is a low level of enforcement, there is likely to be reporting differences when firms use IFRS across countries (Nobes, 2013). Even if enforcement is the same, differences will still exist because of the discretionary nature of IFRS (Hail and Leuz, 2006).

2.4 Difference between Greece, Italy, Portugal, Spain (GIPS) and the Rest of Western Europe

One issue of classifying countries by only the code-common distinction is that it is often overly simplistic. La Porta et al. (1997, 1998) further delineate code law countries by breaking them into further groups based on a Scandinavian, French, or German code law origin. Greece, Italy, Portugal, and Spain (henceforth referred to as GIPS) are all French code law countries. However, other externalities can also arise that induce countries to act in a similar manner. GIPS is one such classification.

The countries of Greece, Italy, Portugal, and Spain have historically different interactions with the rest of the European Union. Since 1985, the citizens of France, Germany, Belgium, Luxembourg, and the Netherlands were allowed free access between their countries. Some non-EU countries joined in this free movement of people. However, the citizens of Greece, Italy, Portugal, and Spain were not granted the same consideration until 1995 (Dainotto 2007) Sotiropoulos (2004) notes that even though

the GIPS are influenced by the French code law origin, that it is misleading to put them in the same category as other French code law countries. He defines five traits that differentiate the GIPS from the rest of Western Europe (including other French code law countries). Some of these traits may appear in other countries, but what differentiates the GIPS is that all five traits existed in these countries at the same time, the traits were interrelated with each other, and they endured until the late 1990s. He defines the five traits as (pp. 419), “enduring party politicization of the higher civil service; patronage patterns of personnel recruitment to the private sector; uneven distribution of human resources within the public sector; formalism and legalism reflected in the over-production of laws, the frequent lack of implementation; and the lack of a traditional administrative elite (with the exception of Spain).” Hallin and Papathanassopoulos (2002) look at media in GIPS. They compare the development of media in these countries and discuss how they are closer to media in Latin American than they are to the rest of the countries in the European Union. They attribute this to the historical relationship between the GIPS and Latin America, and similarities in their political development, specifically (pp. 175), “conflict between liberal democratic and authoritarian traditions continued through most of the 20th century.”

Similar to political differences with the rest of Europe, there are macroeconomic issues that occur across these four countries that differentiate them from other European countries. These countries are considered weaker than their EU counterparts due to high levels of unemployment, low competitiveness, high levels of debt, and overall poor economic performance (Andrade, 2009). Part of this is driven by historical consideration; GIPS countries have cultures and political economies that are similar to each other that have limited their development compared to other EU nations. Ferrera (2005, pp. 5) points out that the distinguishing features that have hampered them are the, “role of the family, the incidence of the irregular and underground economy and low administrative capacities, especially at the peripheral, street-level end of the state apparatus.” This creates a very different starting point for these nations compared to other EU countries.

The stated goal of an integrated monetary and financial policy in the EU has helped contribute to the current GIPS situation. The introduction of the Euro and IFRS have both reduced barriers to investment between investors and capital markets and has given rise to what is called the portfolio Euro bias where European investors have a strong bias for portfolios from other EU members over other international portfolios (Balli, Basher, and Ozer-Balli, 2010). The mandatory usage of the Euro may possibly be one of the drivers of today's weakness in those countries if there was a belief that increased risk-taking could be mitigated by an EU bailout if the GIPS engaged in risky borrowing (Holinski, Kool, and Muysken, 2012).

This bias towards EU countries investing more within the EU (as opposed to international investment outside the EU) has lowered barriers to investment between EU investors and EU firms. Whereas in the past money stayed within a country, the geographical boundary still exists but it now stays within the EU. This has led to more active capital markets in the European Union as investors looked to diversify previously domestic only investment across countries within the Euro zone. The Euro has contributed to this by lowering currency fluctuation risks. IFRS has also helped this by lowering the informational barrier between firms and investors by having a common reporting requirement. The portfolio Euro bias has increased over time at the expense of a home portfolio bias, which has been reflected in an increase in portfolios across EU equity markets. However, Balli et al. (2010) find a slowdown in that convergence as the GIPS entered into their own financial crises and as a result, the diversification across EU markets has not lowered the risk potential as much as diversification outside of the EU.

The current problems faced by these countries are precipitated by a unique set of circumstances that differentiate them from the rest of Europe. Di Mascio and Natalini (2013) point out that these countries did not have established bureaucracies prior to becoming democracies, which caused weak institutional settings that allowed elites to control these countries. The standardization of something like

a currency or an accounting standard, therefore, creates the potential for less than full implementation due to this lack of institutions and the over-arching control by the elites. Therefore, there may not be full convergence due to this historical bias in the GIPS countries. This difference in environment has set them upon a path that continues to differ from other EU countries in the sample that can be seen in Table 1.¹³ These differing results between GIPS and the rest of continental Europe are consistent with Ferrera (2005) who states the reason for the differences are due to their historical economies in the 1940s and 1950s when GIPS jobs were more agrarian and self-employment based.

Table 1: Summary of Average Differences by Country Classification

<i>Indicator</i>	Time Period	GIPS	Code Law	Common Law
Labor Force Participation	1996-2001	52.99	58.85	60.05
	2002-2004	54.48	59.17	61.98
	2005-2010	55.80	60.01	63.21
	1996-2010	54.41	59.38	61.70
Long-Term Unemployment	1996-2001	52.21	36.40	38.10
	2002-2004	44.71	31.30	26.69
	2005-2010	41.81	31.92	30.67
	1996-2010	46.55	33.58	32.84
Cost of Business Start-Up	2003-2004	21.00	3.74	8.18
	2005-2010	15.96	2.79	3.04
	2003-2010	17.22	4.325	4.33
Disclosure	2005-2010	4.75	6.67	7.67
GDP Growth	1996-2001	3.35	2.81	3.74
	2002-2004	2.20	1.71	2.85
	2005-2010	0.60	1.24	1.30
	1996-2010	2.02	1.97	2.59
Annual Inflation	1996-2001	3.51	1.24	2.49
	2002-2004	3.40	1.46	2.79
	2005-2010	2.23	1.82	1.14
	1996-2010	2.97	1.52	2.01
Trade	1996-2001	55.80	80.33	114.28
	2002-2004	56.15	85.94	111.39
	2005-2010	59.41	96.50	119.38
	1996-2010	57.31	87.92	115.74

¹³ Table 1 shows the average country-indicator by country classification. Individual country indicators can be found in Appendix A.

Government Debt	1996-2001	91.65	69.51	53.44
	2002-2004	88.50	60.51	42.39
	2005-2010	89.20	56.58	53.85
	1996-2010	90.04	62.54	51.39
Gross Domestic Savings	1996-2001	18.79	24.36	26.57
	2002-2004	18.94	24.44	26.62
	2005-2010	16.86	24.17	25.20
	1996-2010	18.05	24.30	26.03
Market Capitalization	1996-2001	55.08	75.66	121.55
	2002-2004	52.41	63.03	90.18
	2005-2010	54.06	71.60	86.06
	1996-2010	54.14	71.51	101.08
Stocks Traded	1996-2001	56.61	47.64	84.05
	2002-2004	50.61	54.85	90.21
	2005-2010	63.75	77.12	122.87
	1996-2010	58.26	60.87	100.81

All data and descriptions come directly from the World Bank Indicators (<http://data.worldbank.org/indicator>). *Labor Force Participation* is a rate that represents the proportion of the population ages 15 and older that is economically active: all people who supply labor for the production of goods and services during a specified period. *Long-Term Unemployment* refers to the number of people with continuous periods of unemployment extending for a year or longer, expressed as a percentage of the total unemployed. *Cost of Business Start-up* is the cost to register a business is normalized by presenting it as a percentage of gross national income (GNI) per capita. Data for this indicator is available from 2003 onward. *Disclosure* is an index that measures the extent to which investors are protected through disclosure of ownership and financial information. The index ranges from 0 to 10, with higher values indicating more disclosure. Data is only available from 2005 onwards. *GDP Growth* is the annual percentage growth rate of GDP at market prices based on constant local currency. Aggregates are based on constant 2000 U.S. dollars. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. *Annual Inflation* is measured by the annual growth rate of the GDP implicit deflator shows the rate of price change in the economy as a whole. The GDP implicit deflator is the ratio of GDP in current local currency to GDP in constant local currency. *Trade* is the sum of exports and imports of goods and services measured as a share of gross domestic product. *Government Debt* is the entire stock of direct government fixed-term contractual obligations to others outstanding on a particular date. It includes domestic and foreign liabilities such as currency and money deposits, securities other than shares, and loans. It is the gross amount of government liabilities reduced by the amount of equity and financial derivatives held by the government. Because debt is a stock rather than a flow, it is measured as of a given date, usually the last day of the fiscal year. *Gross Domestic Savings* are calculated as GDP less final consumption expenditure (total consumption). *Market Capitalization* is the share price times the number of shares outstanding. Listed domestic companies are the domestically incorporated companies listed on the country's stock exchanges at the end of the year. Listed companies does not include investment companies, mutual funds, or other collective investment vehicles. *Stocks Traded* refers to the total value of shares traded during the period as a percentage of GDP. This indicator complements the market capitalization ratio by showing whether market size is matched by trading.

GIPS countries differ quite a bit from the other countries in the sample when looking at various average World Bank Indicators. For example, GIPS countries have a lower labor force participation rate

than both code and common law samples during the sample time period. They have higher levels of long-term unemployment. The cost of starting a business is higher. They have less stringent disclosure. They have a higher GDP growth rate compared to code law countries before mandatory IFRS adoption, but they have a lower GDP growth rate compared to common law countries in the pre-IFRS time period. Post-IFRS, their GDP growth is lower than both other code law and common law sample countries. The rate of inflation is higher in GIPS countries compared to the other countries. In addition, they engage in less total trade (exports plus imports), have lower levels of saving, and have higher levels of government debt. The market capitalization of firms in the Netherlands and the UK is higher than code law countries which is higher than GIPS countries. These differences in macroeconomic variables could be influenced by differences imbedded in the institutions of the GIPS countries. GIPS have socio-economic constraints that create different economic environments. Matsaganis, Ferrera, Capucha, and Moreno (2003) assert that the lack of strong governmental social safety nets coupled with the increased pressure on family to make up for weaker social safety nets in GIPS give them a set of constraints unique from the rest of Western Europe. The differences in these institutions become important because institutions do not change easily and countries can become what is coined by Mahoney (2000) as set on “path dependency.”

The quantifiable macroeconomic factors are not the only way that GIPS differ from the rest of Western Europe. Kickert (2001) explains that the GIPS all have certain characteristics that while not quantifiable, create common traits such as bureaucracies, welfare states, and political democratic systems that cause them to differ from the rest of Western Europe. He attributes these differences to “legalism, politicization, and clientelism.” Legalism creates a strongly centralized and controlled administration. Administrative jobs have high levels of job security, which creates inefficiency in these countries. These countries have high levels of politicization where politics are entwined in everyday life and affects things like public sector jobs all the way from entry level to higher jobs requiring party

affiliation, and political shortcuts for those who are civil servants that circumvent taking entrance examinations. This politicization creates high levels of distrust from those who do not (or are not able to) take advantage of the political help. This also helps to stymie reforms and makes these countries react much slower to changes.

Kickert (2001) also addresses how culture, as quantified by Hofstede (1991), reflects differences between Southern Europe and the rest of Europe. The data in Table 2 come from Hofstede (1984, 2001) and shows this GIPS divide. Power distance describes how members of a culture deal with inequality. Higher power distance means people accept that there are inequalities and do not try to rebalance to create more equity, while low power distance try to minimize inequalities by and aim for a fairer redistribution. GIPS countries have higher power distance than both code and common law countries. Code law countries do have higher power distance compared to common law countries but the difference between them is not as great as the distance between GIPS and either code or common law countries. The patronage system that exists in the GIPS countries may help explain that people outside of the ruling political party feel less empowered and feel greater levels of inequality. Individualism reflects a culture where people have a greater responsibility for themselves or immediate family. A low level of individualism is called collectivism and it is the responsibility of a peer group to share responsibility for those within their group in exchange for loyalty. GIPS have lower levels of individualism compared both code and common law countries. This makes sense given the level of patronism that exist in GIPS countries. Common law countries have the highest level of individualism. Uncertainty avoidance describes how a culture feels about uncertainty. GIPS countries have a higher level of uncertainty avoidance than code law countries. This implies that they use a codified set of beliefs and that deviation from social mores is not tolerated. Common law countries have the lowest level of uncertainty avoidance which implies they are more comfortable with uncertainty.

Table 2: Hofstede Differences

	Power Distance	Individualism	Masculinity	Uncertainty Avoidance	Long Term Orientation
Panel A:					
<i>Greece</i>	60	35	57	112	n/a
<i>Italy</i>	50	76	70	75	34
<i>Portugal</i>	63	27	31	104	30
<i>Spain</i>	57	51	42	86	19
<i>Average</i>	57.5	47.25	50	94.25	27.67
Panel B:					
<i>Austria</i>	11	55	79	70	31
<i>Belgium</i>	65	75	54	94	38
<i>Denmark</i>	18	74	16	23	46
<i>Finland</i>	33	63	26	59	41
<i>France</i>	68	71	43	86	39
<i>Germany</i>	35	67	66	65	31
<i>Sweden</i>	31	71	5	29	20
<i>Average</i>	37.29	68	41.29	60.86	35.14
Panel C:					
<i>The Netherlands</i>	38	80	14	53	44
<i>Ireland</i>	28	70	68	35	43
<i>United Kingdom</i>	35	89	66	35	25
<i>Average</i>	33.67	79.67	49.33	41	37.33

All Hofstede variables and definitions come from the work of Hofstede and can be found in his earlier work (1984, 2001) and in later work (2010). Hofstede's original work captured four dimensions, power distance, individualism, masculinity, and uncertainty avoidance. The fifth dimension, long-term orientation, was first described in 2001. *Power distance* describes how members of a culture deal with inequality. High power distance countries accept that there are divisions within a society and do not seek to rebalance the inequalities for a more equal distribution. Low power distance societies try to minimize the inequalities that exist to what is viewed as a fairer distribution between groups. *Individualism* describes a culture in which people have the greater responsibility for themselves or immediate family. Cultures with low individualism (collectivism) have an expectation that others in their peer group will help share the responsibility and in exchange for this, loyalty is given. *Masculinity* refers to a culture that is competitive and success, assertiveness, and achievement are highly valued. A culture with a low level of masculinity (femininity) describes a culture where there is a greater emphasis on compassion and cooperation. *Uncertainty avoidance* describes how a culture deals with uncertainty. A culture with high uncertainty avoidance will have a codified sense of behavior and behavior that violates social mores is not tolerated. Cultures with low uncertainty avoidance are comfortable with uncertainty. *Long-term orientation* is used to describe how a culture deals with rewards. Countries with high long-term orientation place importance on future goals and rewards, while countries with short-term orientation place greater importance on the past and present.

These differences in GIPS countries compared to the rest of Western Europe could contribute to differences in accounting conservatism. More recent events, like the debt crises that exist within the

GIPS, could affect accounting conservatism since debt is related to conservatism via debt covenants. This makes them more susceptible to financial problems. An additional consequence that could arise is a higher cost of capital for firms within these countries as their risk premium rises (Gros, 2010). This could also have an effect on the level of conservatism within these countries.

2.5 Cross National Differences in Unconditional Conservatism

Existing literature on unconditional conservatism typically has found code-law countries are more conservative than common-law countries. Gray (1980) finds that French and German companies are more pessimistic in their accounting behavior compared to UK companies. He attributes this difference to the nature of stakeholders in the different countries. Companies in the UK are most concerned with equity investors while those in France and Germany cater more to the needs of the state. Joos and Lang (1994) take this a step further and show that while Germany and France are both more conservative than the UK, Germany is the most conservative since credit holders are the ones who benefit most from their reporting behavior. France is between Germany and the UK.¹⁴

Using a conservatism index for 1996 to 2003 (pre-IFRS) Hollister and Shoaf (2010) find that France and Germany have the same level of conservatism. They both have higher levels of conservatism than the UK. Black and White (2003) use creditor-orientation and book-tax conformity to show that Germany and Japan, both code-law countries, are more conservative than the US. This results in greater value relevance for the book value of equity in code law countries. Giner and Rees (2001) compare Germany, France, and the UK from 1990 to 1998. They choose these countries because they represent three distinct legal traditions: Germanic civil (or code) law, French civil (or code) law, and

¹⁴ This result could be due to France's history of reporting for creditors but they focus on uniform standards and actively assist the government in managing the French economy (Joos and Lang, 1994). This stems from their Plan Comptable Général (PCG). The PCG was run by the French government and acted as their standard setter. As a result, all companies had to have the same procedures and formats to make it easier for country-level policy implementation (Naciri and Hoarau, 2001).

common law countries. They compare seventeen measurement differences in accounting issues among their home GAAPs and find that of the three, German GAAP was the most conservative because of things like their accounting regulations did not allow revaluation, research and development had to be expensed, and LIFO was allowed without restrictions. France had a mix of conservative practices and the UK had the least amount of conservatism by these measures. They interpret this to mean that pervasive (unconditional) conservatism is greatest in Germany. These results are confirmed when looking at unconditional conservatism specifically bifurcated by legal system. “Continental” countries, those in Western Europe excluding the UK and Ireland, have more balance sheet conservatism (unconditional) than countries with common-law legal systems (García Lara and Mora, 2004). However, a later paper by Salter, Kang, Gotti, and Douppnik (2013) use a sample from 1989 to 2006 of twenty-two countries of various legal origin and find that the English legal system increases the amount of unconditional conservatism.

Even though there have been differences between countries, it does not mean that a level of conservative behavior cannot change in a country. Land and Lang (2002) examine the book to market ratios, a measure of unconditional conservatism, for firms in Australia, Canada, France, Germany, Japan, the US, and the UK. They find that there is a convergence over time in book to market ratios. They also show the correlation between cash flow and accruals become more similar over their sample time period from 1987-1999 for countries from different legal systems. They find correlations between cash flow and accruals have become less negative for all of the countries in the sample except for the US and Canada. Beuselinck, Joos, and Van der Meulen (2007) find difference in accrual measurements from 1991 to 2005, which incorporates the pre-IFRS years and the transition years. There is some convergence in their accrual model 15 years prior to mandatory IFRS which implies that a unified standard alone may not be the thing driving the convergence. However, the change from local GAAP to IFRS may act as an impetus to speed up this convergence between code and common law countries.

Cross National Comparisons of Conditional Conservatism

Extant research also shows that there is a trend towards higher amounts of conditional conservatism over time for both legal systems (Raonic et al., 2004; Ball et al., 2008) and that all countries have some level of asymmetric timeliness regardless of legal system (Ball et al., 2000) . Some academic research shows that accounting information, specifically the speed of incorporating losses, is more timely in common law countries. The reasons given for this phenomenon are:

1. Common law countries are more market-oriented and use conservatism as a constraint against manager expropriation. Therefore, there is greater demand to incorporate economic income into reported earnings.
2. Litigation tends to be higher in common law countries so early disclosure of bad news can help to lower litigation risk for a firm (Ball, Robin, Wu, 2003).
3. Differences in international accounting cultures can embed themselves in the way firms recognize revenue and anticipate future operating expenses (Gigler, Kanodia, Sapra, and Venugopalan, 2009).
4. Firms located in countries with more equity financing or stricter enforcement see more timeliness in their publicly traded firms (Raonic et al., 2004).

Using a sample from 1983-2001, LaFond and Watts (2008) find Anglo-American (common law) countries exhibit more conditional conservatism than Continental (code law) countries. As discussed earlier, La Porta et al (1998) proposes that the code law legal systems can further be broken down into the sub-categories of German, French, and Scandinavian legal systems. These categories, along with common law countries, have examined differences in asymmetric timeliness. Ball et al. (2008) find that

English and Scandinavian countries respectively have the highest level of timely loss recognition followed by French firms and then German with the lowest level of conditional conservatism.

While the evidence points towards more conditional conservatism in common law countries, the motivation for why is not complete. Institutional factors are often cited as the reason for potential differences between legal systems. Common law countries give both shareholders and creditors strong rights. The legal protection of shareholders acts as a substitute for ownership concentration. Therefore, French legal system countries, with the lowest creditor rights, tend to have higher ownership concentration (La Porta et al., 1998). Common law countries protect investors the most, followed by Scandinavian legal system countries, German legal system countries, and lastly, French civil law countries are at the other end of the spectrum; creditor rights vary slightly except German code law countries have high levels of creditor rights. France also has the lowest level of creditor rights. Ball et al. (2008) conclude that debt markets, not equity markets drive reported conditional conservative behavior. In addition, while the legal system origin is significant, three variables relating to legal environment, rule of law, corruption, and creditors' are not significant. The lack of significance for these variables may be attributed to the endogenously determined nature of shareholder protection and conditional conservatism by legal and institutional settings where the firms operate (Brown, He, and Teitel, 2006). Another reason for *differences* may be because primary stakeholders differ by country and this affects reporting behavior. Stulz and Williamson (2003) find the somewhat different result that stock market development is linked to legal system while debt markets and banking are correlated within culture. If countries have weak investor protection, countries may develop a substitute mechanism (La Porta et al., 2008). IFRS may be that mechanism for code law countries in the EU. This trend towards more conservatism across countries should still continue after IFRS. However, these institutions that are imbedded in the financial markets and debt markets may still continue to hamper true convergence.

However, empirical evidence does not always uphold these findings of greater common law conservatism. Alford et al. (pp. 184, 1993) investigate earnings quality for firms between countries and find that “annual accounting earnings from Australia, France, the Netherlands, and the United Kingdom are more informative or more timely than U.S. accounting earnings. The results for Belgium, Canada, Hong Kong, Ireland, Japan, Norway, South Africa, and Switzerland are inconclusive. In contrast, annual accounting earnings from Denmark, Germany, Italy, Singapore, and Sweden reflect less timely or less value-relevant information than U.S. accounting earnings.” This is opposite of the expectation of more timeliness for common law countries since the US common law is more market oriented than those countries. In addition, the US and the UK are both common law countries which show that there are differences that exist between countries of the same legal classification. García Lara and Mora (2004) find no significant difference between the UK and other continental European countries in their sample. The only country where there is statistically less conservatism than the UK is Germany. Giner and Rees (2001) look at firms from France, Germany and Great Britain and find a stronger relationship between earnings and bad news than between earnings and good news and conclude that as of their sample time period, there is no difference between the legal systems as of their sample time period of 1991-1995.

2.6 Hypotheses

The prior two sections are used to help formulate the following hypotheses in the alternative form:

H1: Code law countries will have the highest level of unconditional conservatism, followed by GIPS, and then common law countries prior to IFRS.

H2: After the implementation of IFRS, there will be no significant difference in unconditional conservatism between code law countries and common law countries and code law countries and GIPS.

The literature for conditional conservatism is more mixed. There is literature that points out common law countries have more conditional conservatism than code law countries and many of the

reasons given for conditional conservatism, the strength of debt and equity markets and a litigious environment, are typically driven by characteristics of common law countries. However, the studies that come to that conclusion have the United States as one of the sample countries or discuss conditional conservatism in the context of the United States. Because this is an all European Union sample, the other literature that shows no significant difference between the code and common law may be a better match theoretically. The separation of GIPS still may drive some differences because GIPS observations are unique from the rest of the code law observations. Since GIPS have stronger ties outside of normal debt and equity markets, the things that drive conservatism, GIPS may be less timely since key stakeholders have the information that they need and there is less information asymmetry. For those firms, conservatism will not need to act as a mechanism to lower that information asymmetry. GIPS countries are also less like common law countries than the other code law countries in the sample. Therefore, it is reasonable to hypothesize that the timeliness of GIPS will differ from the code law countries in the sample. There is no assumption about the directional difference between GIPS and code law countries, just that they will differ. This leads to the following hypotheses:

H3: There is no significant difference in the level of timeliness between code and common law countries but GIPS will differ in their level of conditional conservatism.

H4: There is no significant difference in the level of conditional conservatism between code and common law countries and between code and GIPS after IFRS.

Chapter 3

Methodology and Sample

3.1 Sample

I begin with all firms headquartered in EU countries that mandated IFRS for all publicly traded firms as of January 1, 2005 from Compustat Global. EU countries are advantageous for looking at the benefits of IFRS adoption because they can minimize the impact of economic and social differences (Giner and Rees, 2010). In addition, the implementation of IFRS became mandatory across these countries at the same time so this should limit the impact of inter-temporal results stemming from adopting IFRS in different time periods. Firms headquartered in the following fourteen EU countries make up this sample: Austria, Belgium, Denmark, Finland, France, Germany, Great Britain, Greece, Ireland, Italy, the Netherlands, Portugal, Spain, and Sweden. I then limit the sample to firms that have primary shares traded on the EU exchanges with at least 20 firm-year observations. The EU requirement for IFRS pertains to all publicly traded companies on EU exchanges; therefore, observations should be limited to EU exchanges to capture the effect of changes of conservatism in the EU. Some firm-year observations are originally included for variable construction so I eliminate those firm-years from the final sample that are only needed to calculate variables that are outside the 1996 beginning time period. The final sample consists of 52,964 firm-year observations. An observation is included in the sample if it between 1996 and 2010, is in the non-financial and non-utility industries¹⁵, and has at least one calculated measure of conservatism. A breakdown of the final sample can be found in Table 3.

¹⁵ Financial firms and utilities often have different levels of regulation than other firms that are publicly traded and therefore differ from firms outside those industries on their fundamental characteristics. Hence, it is common practice to exclude financial and utility firms (Frank and Goyal, 2003)

Table 3: Total Number of Firm-Year Observations from Compustat Global

Firm-years with headquarters in the EU countries	71,685
Less:	
Firm-years not traded on EU exchanges	(676)
Firm-years in the financial (SIC 6000-6999) or utility (4900-4999)	(2,758)
Firm-years no longer needed once variables created	(7,191)
Firm-years without any measure of conservatism	(8,096)
Total Firm-Year Observations	52,964

Table 4 on the following page shows firm-year observations for each year and country. I classify firms in the countries as code or common law based on La Porta et al (1997, 1998) or GIPS if the firm is located in Greece, Italy, Portugal or Spain¹⁶. I use the La Porta et al. (1997) legal system classification for 13 out of 14 of the countries. However, I do change the classification of one of the countries, the Netherlands, as explained previously. Observations are also classified as pre-IFRS, intermediate-IFRS, and post-IFRS. The Pre-IFRS period represents the years from 1996 to 2001, intermediate-IFRS is from 2002 to 2004, and post-IFRS is from 2005 to 2010. The post-IFRS time period represents six years, so the pre-IFRS period was chosen to also contain six years. Firms-year observations prior to 2002 make up 35% of the observations. Firm-year observations in 2005 to 2010 make up 44% of the sample. Table 5 presents a summary of the observations based on country classification and time period.

The distinctive nature of the 2002 to 2004 time-period reflects the timing of Regulation (EC) No. 1606/2002 by the European Parliament and the Council (2002). Regulation (EC) No. 1606/2002 announced in 2002 that the consolidated statements of all publicly traded companies would be mandated to use international accounting standards in 2005. The years from 2002 to 2004 represent a time period where firms were aware of the requirement to switch to IFRS in 2005. Therefore, the years 2002-2004

¹⁶ The differences between GIPS and the rest of Western Europe are explained previously during the literature review.

Table 4: Number of Observations by Country and Year

	Pre-IFRS Years						Intermediate-IFRS Years			Post-IFRS Years						
Year	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	Total
<i>(a) Common Law Countries</i>																
Austria	57	63	65	67	69	66	54	53	52	51	53	55	53	52	48	858
Belgium	57	61	66	76	86	84	76	80	85	96	94	92	91	88	84	1,216
Denmark	63	76	79	93	105	102	99	95	90	91	95	103	105	102	100	1,398
Finland	43	55	65	84	100	102	99	97	97	101	101	101	97	95	93	1,330
France	344	388	446	519	584	581	566	564	580	587	580	559	539	541	519	7,897
Germany	277	326	395	541	656	638	573	556	565	603	615	610	590	561	540	8,046
Sweden	<u>60</u>	<u>103</u>	<u>164</u>	<u>197</u>	<u>230</u>	<u>239</u>	<u>252</u>	<u>260</u>	<u>280</u>	<u>298</u>	<u>324</u>	<u>338</u>	<u>341</u>	<u>336</u>	<u>327</u>	<u>3,749</u>
Total	901	1,072	1,280	1,577	1,830	1,812	1,719	1,705	1,749	1,827	1,862	1,858	1,816	1,775	1,711	24,494
<i>(b) GIPS Countries</i>																
Greece	22	47	63	79	82	109	122	121	155	172	179	186	192	198	188	1,915
Italy	92	103	110	121	161	171	170	170	180	192	207	206	201	194	191	2,469
Portugal	41	48	44	46	45	48	48	48	48	44	43	43	45	43	42	676
Spain	<u>84</u>	<u>100</u>	<u>100</u>	<u>105</u>	<u>108</u>	<u>104</u>	<u>100</u>	<u>100</u>	<u>103</u>	<u>99</u>	<u>97</u>	<u>101</u>	<u>97</u>	<u>97</u>	<u>93</u>	<u>1,488</u>
Total	239	298	317	351	396	432	440	439	486	507	526	536	535	532	514	6,548
<i>(c) Common Law Countries</i>																
Great Britain	1,049	1,220	1,225	1,202	1,256	1,274	1,297	1,313	1,431	1,534	1,540	1,471	1,339	1,230	1,138	19,519
Ireland	26	30	38	36	38	37	35	35	39	47	49	46	44	42	37	579
Netherlands	<u>117</u>	<u>130</u>	<u>151</u>	<u>155</u>	<u>147</u>	<u>137</u>	<u>129</u>	<u>123</u>	<u>120</u>	<u>118</u>	<u>111</u>	<u>108</u>	<u>99</u>	<u>90</u>	<u>89</u>	<u>1,824</u>
Total	1,192	1,380	1,414	1,393	1,441	1,448	1,461	1,471	1,590	1,699	1,700	1,625	1,482	1,362	1,264	21,922
Overall Total	2,332	2,750	3,011	3,321	3,667	3,692	3,620	3,615	3,825	4,033	4,088	4,019	3,833	3,669	3,489	52,964

This table shows all firm-year observations by country and year for EU firms headquartered in EU countries. A firm-year observation is included if at least one dependent variable can be calculated. Observations from the financial and utility sectors are omitted. Observations are broken into three time periods. The pre-IFRS period is from 1996 to 2001, the intermediate-IFRS time period is from 2002-2004, and the post-IFRS period is from 2005 to 2010. Firms in panel A represent firm-year observations in code law countries, firms in panel B represent firm-year observations from Greece, Italy, Portugal, and Spain (denoted as GIPS), and firms in panel C represent firm-year observations in common law countries plus the Netherlands.

Table 5: Summary of Observations by Country Classification and Time Period

	Pre-IFRS	Intermediate-IFRS	Post-IFRS	Total
Code Law	8,472	5,173	10,849	24,494
GIPS	2,033	1,365	3,150	6,548
Common Law	8,268	4,522	9,132	21,922
Total	18,773	11,060	23,909	52,964

This table shows all firm-year observations by country classification and time period. A firm-year observation is included if at least one dependent variable can be calculated. Observations from the financial and utility sector are omitted. Observations are broken into three time periods. The pre-IFRS period is from 1996 to 2001, the intermediate-IFRS time period is from 2002-2004, and the post-IFRS period is from 2005 to 2010. Firm-year observations are classified as code law if they are headquartered in Austria, Belgium, Denmark, Finland, France, Germany, or Sweden and traded on an EU exchange. Firm-year observations are listed as GIPS if they are headquartered in Greece, Italy, Spain, or Portugal. Firm-year observations are classified as common law if they are headquartered in Great Britain, Ireland, or the Netherlands.

represent a transitional period when IFRS were optional but not mandatory and thus, are excluded from the main analyses. It is likely that firms would begin to alter their behavior in preparation for the mandatory change to IFRS in 2005 prior to the 2005 deadline. Excluding these years is important from a methodological point of view to have a clear test of the mandatory effect of IFRS on reporting behavior¹⁷.

There are prior examples from economics that permits the exclusion of time periods (or observations of other factors) that could affect results but provide no clear benefit. For example, Roodman (2007) looks at multiple studies on foreign aid and economic growth. He notes (pp. 268), “Outliers are not synonymous with influential observations. But even outliers that do not greatly influence coefficients of interest can substantially affect reported standard errors. In addition, outliers are the observations most likely to signal measurement problems or structural breaks beyond which the

¹⁷For robustness, all data is re-run over 1999 to 2004 and 2005 to 2010.

core model does not hold – both of which seem better reasons for exclusion than high influence.”¹⁸ An example in the SAS handbook¹⁹ on the Chow test for structural breaks highlights the need for excluding specific time periods. There is an assumption that an underlying process is the same across all observations in time series data. If there is a period of change, a Chow test can show if there are differences between the time periods by testing the error term (Chow, 1960). The SAS manual cites the textbook, *Introduction to Econometrics, Second Edition* by Maddala and Lahiri (1992) which includes observations that include per capita food consumption, the price of food, and per capita income for 1927-1941 and 1948-1962. There are no observations available from 1942 to 1947. Given that this was a time of rationing which effects consumption and price of food and a military draft which affects per capita income, it makes economic sense to have this time period excluded. Demirgüç-Kunt and Detragiache (1998) explores factors that affect banking crises from 1980-1994 in developed and developing countries. They have multiple instances where they exclude observations due to transitional observations; they exclude transitional economies since they are distinctive due to going from a centrally planned to a market economy and they eliminate all observations after a banking crisis. A more recent example can be found in accounting literature by Byard, Li, and Yu (2011) in a robustness test. They examine the effect of mandatory IFRS implementation on the information environment of financial analysts. They leave out 2005 as their transition year in untabulated results. They posit that larger firms would have greater guidance during their transition that may lower analysts’ forecast errors and dispersion. Given that, firms therefore may still be reporting things differently, not because post-IFRS differences, but due to structural inequalities during that time. However, their results remain unchanged with or without their transition year. Given that 2002-2004 represents a transition period where some

¹⁸ He goes on to state, “That said, outliers do not necessarily signal measurement problems or structural breaks. This is especially possible when the variable of interest is highly non-normal, such as the Collier and Dehn (2001) export price shock variable. In such cases, outliers may contain valuable information about the development process under rare circumstances.” Considering that the implementation of IFRS is a situation that is likely to induce a structural break, the main point, that outliers are likely structural breaks beyond which the core model doesn’t hold, is the more likely situation.

¹⁹ <http://support.sas.com/rnd/app/examples/ets/chow/>

firms were reporting in IFRS, some were not, and the reaction to early adoption varied by country, the strongest way to test for an effect of IFRS would be to exclude the time period where results could be affected by factors other than IFRS. Therefore, the main analysis of this dissertation will focus on the pre-IFRS years of 1996-2001 and the post-IFRS years of 2005-2010 and robustness tests will test from 1999-2010 inclusive of the transition years.²⁰

3.2 Institutional Control Variables and the Relationship to the Variable of Interest

Institutional differences play a role in the development of financial institutions and hence, reporting behavior (La Porta et al., 1997, 1998; Hung, 2001; Ball et al., 2008). These institutional differences should remain regardless of what type of accounting standard a country uses and control for omitted institutional variables that drive reporting behavior. La Porta et al. (1997, 1998) have been used extensively in accounting research to explain international differences in reporting behavior.²¹ I include control variables for specific legal systems and institutions, and later, country indicators.

There are indicator variables for code law countries, common law countries, and GIPS countries. In addition to that, there are specific institutional control variables from La Porta et al. (1997, 1998). These variables are defined in Table 6 on the following page.

The variable for “Rule of Law”, *a* is a variable that captures the legal enforcement within a country. La Porta et al. (1997, 1998) take the of rule of law from within a country from the *International Country Risk Guide*. They average the bi-yearly scores that range from 0 to 6 from 1982 to 1995 and rescale it as a measure from 0 to 10 where higher numbers represent higher values of rule of law.

Table 6: La Porta et al. (1997, 1998) Variables

²⁰ The pre-IFRS time period shifts from 1996 to 1999 so there are balanced years in the pre- and post- time period for the sample without the 2002-2004 time gap.

²¹ Hung (2001), Leuz, Nanda, and Wysocki (2003), Bushman and Piotroski (2006), Burgstahler et al. (2006), Hail and Leuz (2006), Ball et al. (2008), Li (2010) all use one or more LaPorta et al. (1997, 1998) institutional variables.

Panel A: Variables

Variable Name	Variable Definition
Rule of Law	Assessment of the law and order tradition in the country. Average of the months of April and October of the monthly index between 1982 and 1995. Scale from 0 to 10, with lower scores for less tradition for law and order: Source: <i>International Country Risk Guide</i> .
Anti-Self-Dealing	An index that reflects the strength of minority shareholder protection from expropriation from a controlling shareholder. Lawyers from 102 Lex Mundi law firms received a case study and were asked to complete a questionnaire Ex-ante and ex-post variables were created. The anti-self dealing index is the average of these ex-ante and ex-post variables and ranges from 0 to 1. The higher the index, the more shareholder protection exists within a country. Panels 1.1, 1.2, and 1.3 in Table 1 (pp. 434-435) in Djankov et al. gives variable definitions for all of these variables. Source: http://faculty.tuck.dartmouth.edu/images/uploads/faculty/rafael-laporta/selfdealing_data.xls and Djankov et al. (2008).
Creditor Rights	An index aggregating creditor rights. The index is formed by adding 1 when: (1) the country imposes restrictions, such as creditors' consent or minimum dividends, to file for reorganization; (2) secured creditors are able to gain possession of their security once the reorganization petition has been approved (no automatic stay); (3) the debtor does not retain the administration of its property pending the resolution of the reorganization; (4) secured creditors are ranked first in the distribution of the proceeds that result from the disposition of the assets of a bankrupt firm. The index ranges from 0 to 4. Source: Company Law or Bankruptcy Laws and La Porta et al. (1996).

Panel B: La Porta Institutional Variables by Country

	Rule of Law	Anti-Self-Dealing	Creditor Rights
(A) Code Law Countries			
<i>Austria</i>	10	0.21	3
<i>Belgium</i>	10	0.54	2
<i>Denmark</i>	10	0.46	3
<i>Finland</i>	10	0.46	1
<i>France</i>	8.98	0.38	0
<i>Germany</i>	9.23	0.28	3
<i>Sweden</i>	10	0.33	2
<i>Average</i>	9.74	0.38	2.00
GIPS			
<i>Greece</i>	6.18	0.22	1
<i>Italy</i>	8.33	0.42	2
<i>Portugal</i>	8.68	0.44	1
<i>Spain</i>	7.8	0.37	2
<i>Average</i>	7.75	0.36	1.5
Common Law Countries			
<i>Great Britain</i>	8.57	0.95	4
<i>Ireland</i>	7.8	0.79	1
<i>Netherlands</i>	10	0.20	2
<i>Average</i>	8.79	0.65	2.33

All definitions and values come directly from La Porta et al. (1997, 1998) and Djankov et al. (2008).

It is a measure of enforcement within a country and varies based on legal system. Code law countries have higher *Rule of Law* than common law countries. The variable for “Rule of Law”, a is a variable that

captures the legal enforcement within a country. La Porta et al. (1997, 1998) take the of rule of law from within a country from the *International Country Risk Guide*. They average the bi-yearly scores that range from 0 to 6 from 1982 to 1995 and rescale it as a measure from 0 to 10 where higher numbers represent higher values of rule of law. It is a measure of enforcement within a country and varies based on legal system. Code law countries have higher *Rule of Law* than common law countries. However, when GIPS countries are examined separately, they have lower *Rule of Law* values than common law countries. Ball et al. (2008) include *Rule of Law* based on the work of Bushman and Piotroski (2006) as a control variable for institutional variables that may be omitted. *AntiSelfDealing* is a proxy for the protection of minority shareholder rights within a country from expropriation from a controlling shareholder and/or manager. Djankov, La Porta, Lopez-de-Silanes, Shleifer (2008) compute this index by creating a case study that was filled out by 102 Lex Mundi law firms who were asked to complete a questionnaire. The anti-self-dealing index is the average of the values for the ex-ante and ex-post private control of self-dealing variables and ranges from 0 to 1. Higher values indicate higher levels of shareholder protection. Panels 1.1, 1.2, and 1.3 in Table 1 (pp. 434-435) of Djankov et al. (2008) provide in-depth descriptions of all the component variables that go into the index.²² La Porta et al. (1997, 1998) measure *Creditor Rights* is an aggregate measure from 0 to 4 where a country receives 1 point for each of the following (pp. 1135): “(1) the country imposes restrictions, such as creditors’ consent or minimum dividends, to file for reorganization; (2) secured creditors are able to gain possession of their security once the reorganization petition has been approved (no automatic stay); (3)

²² Originally, La Porta et al. (1997, 1998) used Anti-Director Rights as the proxy for shareholder protection. However, criticism in the literature led them to investigate a new way to measure this construct. In addition to updating anti-director rights in 2008, they also constructed a new measure, the Anti-Self-Dealing Index. They test and find that Anti-Self-Dealing is a better measure of shareholder protection. The 1997 and 1998 La Porta et al. papers include the numerical values for country level anti-director rights within the papers. However, Anti-Self-Dealing is not listed for each individual country in their 2008 paper. Data for Anti-Self-Dealing was obtained from La Porta’s website and can be found at http://faculty.tuck.dartmouth.edu/images/uploads/faculty/rafael-laporta/selfdealing_data.xls

the debtor does not retain the administration of the property pending the resolution of the reorganization; (4) secured creditors are ranked firms in the distribution of the proceeds that result from the disposition of the assets of a bankrupt firm.”

I also include a control variable for the use of the Euro. First, the Euro was introduced in 1999, so an indicator variable for the Euro controls for any effects in reporting behavior based on the introduction of the Euro at that time. Since some of the variables are measured in different currencies, all financial variables are converted to British Pounds. Because of that, there needs to be a control for the effect of currency exchange rates. For example, Prast and de Vor (2005) find the exchange rate between the Euro and the U.S. Dollar fell in the 6 months prior to exchange rate intervention by European Central Bank in 2000. They find asymmetric response between the two currencies. They find that the exchange rate is affected by U.S. economic news but not the Euro zone economic news. In addition, the exchange rate is affected by statements from EU central bankers or politicians but the exchange rate is not affected by statements from U.S. central bankers or politicians. If there is an asymmetric rationale for changes in exchange rates, then an indicator variable for the Euro can help pick up the effect of this by capturing the effect on conservatism based on reporting in the Euro. Even if the variables were reported in one currency, the Euro would need to be controlled for due to the effect of exchange rate fluctuations on stock price reactions. Ma and Kao (1990) find that differences in exchange rates affect the price at which shares trade. The stock price is used for multiple variables: the market to book of equity, the book to market of equity, and the Basu measure of conservatism. A control variable for the Euro can help in the post period to make sure the effect on prices is not being led by changes in exchange rates between the Euro and other currencies.

The key variable of interest is an indicator variable that equals one if the fiscal year is in the post-IFRS time period, 0 otherwise. The pre-IFRS period is from 1996-2001 and the post-IFRS time is from 2005-2010. Multivariate analyses looks at the cumulative time period with the indicator variable

and additional analyses include regressions over both time periods separately. I also use yearly analysis to look at the results on a year-by-year basis. Robustness tests include the intermediate years that were originally excluded. The pre-time in those is defined as 1999-2004 and post-time is defined as 2005-2010.

3.3 Additional Control Variables

Additional control variables are from Ahmed and Duellman (2007)²³. *Size* is the natural log of average total assets at year *t* and year *t*-1. The larger the firm, the more likely they are to use conservative accounting in response to political costs (Watts and Zimmerman, 1978). However, larger firms are covered by more analysts and hence, have lower levels of information asymmetry. Therefore, there is less of a need for asymmetric behavior for larger firms (LaFond and Watts, 2008). *Leverage* is long-term debt divided by average total assets (at year *t* and *t*-1). There is a positive relationship between leverage and conservatism because the more debt a company has, the more likely there are covenants that induce conservative accounting practices. Zhang (2008) finds that conservative accounting helps to lower the interest rate for firms. Therefore, firms that have large amounts of leverage should have higher levels of conservative behavior. *Sales* represents the sales growth between year *t* and year *t*-1. *Sales* is expected to have a negative relationship with the accruals based measures of unconditional conservatism and a positive relationship with the book to market measures of unconditional conservatism (Ahmed, Billings, Morton, and Stanford-Harris, 2002). Profitability is used as a control variable since profitable firms tend to be more conservative. *Cfo_ta* is the proxy used to capture profitability by Ahmed and Duellman (2007) and Ahmed et al. (2002) and is measured as the operating cash flows divided by average total assets from year *t* and *t*-1. I also include an indicator variable if a firm is in the technology industry

²³ Ahmed and Duellman (2007) also control for research and development and advertising expenditures to capture GAAP mandated conservatism. However, the data for these variables are missing across large parts of the sample. For example, the variable for research and development is empty for about 75% of the sample.

based on Field, Lowry, and Shu (2005).²⁴ Ahmed and Duellman (2007) use this variable as a proxy for litigation risk tying higher litigation risk to increased levels of accounting conservatism. However, in an international context where there are different legal systems, what is a high litigation risk in one country may not be a high litigation risk in another. However, the idea of using an indicator variable for technology firms has merit on its own independent of increased legal risk. For example, firms in the technology industry tend to have more inventory write-downs and more write-offs of intangibles (Ahmed et al., 2002) and more information asymmetry (Gompers, 1995). Therefore, the effect of high technology firms should be controlled for in the statistical analysis.

3.4 Measures of Conservatism

All calculated variables come from Compustat Global and are Winsorized at the top and bottom 5%. All currencies are converted to British Pounds for consistency across multiple countries and currencies. I use proxies for unconditional conservatism based on Ahmed and Duellman (2007). *Bkmkequity* is the book to market of equity and is the book value of equity divided by the market value of equity where the market value of equity is the number of common shares outstanding times the closing stock price from the last trading day of the year (Ahmed and Duellman, 2007). I also use the book to market of assets, *Bkmkassets* since unconditional conservatism also can cause a permanent understatement in the book value of assets (Sunder et al., 2011). *Bkmkassets* is calculated as the book value of assets divided by the book value of assets plus the market value of equity minus the book value of equity. *Bkmkequity* and *Bkmkassets* are both aggregate effects of conservatism from the inception of the firm. Firms that are more conservative should have lower book to market ratios since the book values should be low relative

²⁴ An observation is classified in the technology sector if the SIC code is 2833-2836, 3570-3577, 3600-3674, 7371-7379, or 8731-8734.

to market values. Both measures of book to market are multiplied by -1 for interpretational purposes so positive numbers indicate higher levels of conservatism²⁵.

The next set of measures are based off an accruals method of unconditional conservatism (Givoly and Hayn, 2000; Ahmed and Duellman, 2007) which is calculated as (income before extraordinary items – cash flows from operations + depreciation expense)/average total assets and multiplied by -1 for interpretational purposes where positive numbers represent higher levels of unconditional conservatism. I look at this measure in one period, *Con_AccI*, and then also as a three year average at year t-1, t, and t+1, *Con_AccMoveAvg*. The three period measure is important to examine separately since large accruals can be mean reverting. The model for unconditional conservatism from Ahmed and Duellman (2007) is as follows:

$$Con_{i,t} = \beta_0 + \beta_1 Size + \beta_2 Sales + \beta_3 Cfo_ta + \beta_4 Leverage + \beta_5 RuleofLaw + \beta_6 Anti-SelfDeal + \beta_7 CredRights + \beta_8 Techno + \beta_9 UseEuro + \beta_{10} Post-IFRS$$

Legal system indicator variables for common law and GIPS are also used when regressions include all observations from more than one country type. Full regressions run over all years from the regression also include an interaction between the country indicator variable and the legal system indicator.

Conditional conservatism measures are taken from from Ahmed and Duellman (2007) and are derived from Basu (1997). The methodology is based on greater earnings sensitivity to bad news over good news. The model is expressed as follows:

²⁵ Multiplying the measures by negative one helps for interpretation of regression results. For example, there is a positive and significant coefficient on an independent variable, it means that if the independent variable increases, the amount of conservatism increases. If a coefficient is negative and significant, it means that if the independent variable increases, the amount of conservatism decreases. The multiplication of negative one makes the interpretation of the results more intuitive.

$$\begin{aligned}
E_{t,t-j}/P_{t,t-j-1} = & \beta_1 D_{t,t-j} + \beta_2 R_{t,t-j} + \beta_3 D_{t,t-j} * R_{t,t-j} + \beta_4 RuleofLaw + \beta_5 RuleofLaw * R_{t,t-j} + \beta_6 RuleofLaw * \\
& D_{t,t-j} + \beta_7 RuleofLaw * D_{t,t-j} * R_{t,t-j} + \beta_8 Anti-SelfDeal + \beta_9 Anti-SelfDeal * R_{t,t-j} + \beta_{10} Anti-SelfDeal * \\
& D_{t,t-j} + \beta_{11} Anti-SelfDeal * D_{t,t-j} * R_{t,t-j} + \beta_{12} CredRights + \beta_{13} CredRights * R_{t,t-j} + \beta_{14} CredRights * \\
& D_{t,t-j} + \beta_{15} CredRights * D_{t,t-j} * R_{t,t-j} + \beta_{16} UseEuro + \beta_{17} UseEuro * R_{t,t-j} + \beta_{18} UseEuro * D_{t,t-j} + \\
& \beta_{19} UseEuro * D_{t,t-j} * R_{t,t-j} + \beta_{20} Techno + \beta_{21} Techno * R_{t,t-j} + \beta_{22} Techno * D_{t,t-j} + \beta_{23} Techno * \\
& D_{t,t-j} * R_{t,t-j} + \beta_{24} Common + \beta_{25} Common * R_{t,t-j} + \beta_{26} Common * D_{t,t-j} + \beta_{27} Common * D_{t,t-j} * R_{t,t-j} + \\
& \beta_{28} GIPS + \beta_{29} GIPS * R_{t,t-j} + \beta_{30} GIPS * D_{t,t-j} + \beta_{31} GIPS * D_{t,t-j} * R_{t,t-j} + \beta_{32} Post-IFRS + \beta_{33} Post-IFRS \\
& * R_{t,t-j} + \beta_{34} Post-IFRS * D_{t,t-j} + \beta_{35} Post-IFRS * D_{t,t-j} * R_{t,t-j} + Control Variables_t + \varepsilon
\end{aligned}$$

The dependent variable, $E_{t,t-j}/P_{t,t-j-1}$, is earnings and is measured as income before extraordinary items cumulative from year t-j to year t ($E_{t,t-j}$) divided by the market value of equity at the end of year t ($P_{t,t-j-1}$). $D_{t,t-j}$ is an indicator variable set equal to one if the buy and hold return is negative (less than one) and zero otherwise. $R_{t,t-j}$ is the buy and hold return cumulated from four months after the end of the fiscal year t-j-1 through four months after the end of year t. All dollar amounts are converted to British Pounds and all continuous variables are Winsorized at the top and bottom 5%. Country specific controls and firm controls remain the same from the unconditional conservatism regressions. Consistent with Ahmed and Duellman (2007) and Roychowdhury and Watts (2007), I cumulate earnings over multiple time periods and look at results at j=0, j=1, and j=2. I do not go as far back to j=3 though because too far of a backward cumulation will negate the ability to determine the effect of IFRS since it will cross into a prior time period. Pataoukas and Thomas (2011) find that the Basu measure of conditional conservatism is biased. However, Ball et al. (2013) correct for this by added fixed effects to the model. Therefore, as explained in the unconditional conservatism section, I employ industry fixed effects and I cluster the standard errors by industry and by firm.

A key difference between these regressions and those of unconditional conservatism is that of the interpretation of the beta coefficients. Those for unconditional conservatism carry the “normal” interpretation. The dependent variable is unconditional conservatism and the significance and direction of the independent variables assess how well a specific independent variable increases or decreases the amount of unconditional conservatism. For the conditional conservatism regressions, the dependent variable is no longer a proxy for conservatism. The beta coefficients are what determines the effect of good or bad news on conservatism (hence the asymmetric timeliness causing the conservatism to be predicated on good or bad news which shows conservatism conditional upon the type of accounting information). β_2 , the beta coefficient for the buy and hold returns, shows the timeliness of recognizing gains and has a predicted negative direction. β_3 , the beta coefficient on the interaction between the buy and hold returns and the negative return indicator variable, represents the incremental timeliness of bad news (loss) recognition and is expected to have a positive sign. This represents the additional conservatism that occurs if there is a negative buy and hold return. If the buy and hold return is a gain, the dummy variable is equal to 0 and hence, there is no incremental effect of conditional conservatism. If the buy and hold return shows a loss, then the dummy variable is equal to 1 and this is the additional effect (incremental) attributed to timely loss recognition. Total timely loss recognition is measured by $\beta_2 + \beta_3$. If timely loss recognition occurs, then β_3 will have a positive coefficient. Overall timeliness is measured by the R^2 (Ball et al. 2008).

Chapter 4

Unconditional Conservatism Results

4.1 Tests of the Means and Medians for Unconditional Conservatism and Control Variables

T-tests and Kolmogorov-Smirnov tests are used for univariate testing of the means and the medians. All non-institutional control variables are Winsorized at the top and bottom 5%. Table 7 on the following pages shows the mean value for each group and the number of observations by country type and time period followed by Table 8 that shows the median value and the standard deviation by variable based on country-type and time period. The results show that there is significant variation for the control variables and for the unconditional conservative dependent variables between the three different time-periods and between the different country classifications.

Size shows a significant difference between all time-frames and all country classification. Code and Common law countries both start out in the pre-time period at their highest values, decrease in the inter-time period, and increase in the post-period, but do not fully rebound to the pre-IFRS levels. However, for GIPS, the value of size showed a consistent decrease from the original pre-IFRS value. Within each time period, *sales* growth depends on the type of country. GIPS countries have the highest amount of sales in terms of both the median and the mean. *Sales* growth is highest by mean and median in GIPS countries prior to IFRS. The median for GIPS is also highest in the intermediate time period, but the mean is higher for both code and common law observations which is driven by a higher variance for both types of countries in the inter-IFRS time period compared to GIPS. Sales growth is higher for common law and code law observations than GIPS for the mean and the median after IFRS. *Operating cash flows* are highest in common law countries prior to IFRS but decreases in subsequent time periods whereas operating cash flows increase for code law and GIPS observations. Code law and common law

Table 7: Tests of the Mean

Panel A: Control Variables

<i>Size</i>										<i>Sales</i>									
	Code		GIPS		Common	Within Period Tests				Code		GIPS		Common	Within Period Tests				
<i>Pre-IFRS</i>	(1)	4.822 (8,037)	(4)	6.493 (1,855)	(7)	4.117 (7,689)	(1-4)***	(1-7)***	(4-7)***	(1)	0.280 (7,966)	(4)	0.381 (1,848)	(7)	0.222 (7,495)	(1-4)***	(1-7)***	(4-7)***	
<i>Inter-IFRS</i>	(2)	4.122 (5,161)	(5)	5.606 (1,318)	(8)	3.730 (4,461)	(2-5)***	(2-8)***	(5-8)***	(2)	0.120 (5,081)	(5)	0.101 (1,319)	(8)	0.183 (4,219)	(2-5)	(2-8)***	(5-8)***	
<i>Post-IFRS</i>	(3)	4.201 (10,802)	(6)	5.393 (3,106)	(9)	3.830 (9,010)	(3-6)***	(3-9)***	(6-9)***	(3)	0.195 (10,551)	(6)	0.137 (3,098)	(9)	0.234 (8,103)	(3-6)***	(3-9)***	(6-9)***	
Within Country Tests		(1-2)*** (2-3)** (1-3)***		(4-5)*** (5-6)*** (4-6)***		(7-8)*** (8-9)*** (7-9)***					(1-2)*** (2-3)*** (1-3)***		(4-5)*** (5-6)** (4-6)***		(7-8)*** (8-9)*** (7-9)				
<i>Cfo_{ta}</i>										<i>Leverage</i>									
	Code		GIPS		Common	Within Period Tests				Code		GIPS		Common	Within Period Tests				
<i>Pre-IFRS</i>	(1)	0.029 (8,037)	(4)	0.026 (2,002)	(7)	0.068 (7,689)	(1-4)	(1-7)***	(4-7)***	(1)	0.121 (8,037)	(4)	0.116 (1,855)	(7)	0.109 (7,689)	(1-4)	(1-7)***	(4-7)**	
<i>Inter-IFRS</i>	(2)	0.046 (5,161)	(5)	0.042 (1,418)	(8)	0.027 (4,461)	(2-5)	(2-8)***	(5-8)***	(2)	0.123 (5,161)	(5)	0.136 (1,318)	(8)	0.111 (4,461)	(2-5)***	(2-8)***	(5-8)***	
<i>Post-IFRS</i>	(3)	0.041 (10,802)	(6)	0.043 (3,106)	(9)	0.010 (9,010)	(3-6)	(3-9)***	(6-9)***	(3)	0.122 (10,802)	(6)	0.166 (3,106)	(9)	0.109 (9,010)	(3-6)***	(3-9)***	(6-9)***	
Within Country Tests		(1-2)*** (2-3)** (1-3)***		(4-5)*** (5-6)*** (4-6)***		(7-8)*** (8-9)*** (7-9)***					(1-2) (2-3) (1-3)		(4-5)*** (5-6)*** (4-6)***		(7-8) (8-9) (7-9)				

Panel B: Unconditional Conservatism Variables

<i>Bkmkassets</i>										<i>Bkmkequity</i>									
	Code		GIPS		Common	Within Period Tests				Code		GIPS		Common	Within Period Tests				
<i>Pre-IFRS</i>	(1)	-0.858 (7,262)	(4)	-0.956 (1,792)	(7)	-0.720 (7,656)	(1-4)***	(1-7)***	(4-7)***	(1)	-0.997 (7,260)	(4)	-1.393 (1,792)	(7)	-0.665 (7,531)	(1-4)***	(1-7)***	(4-7)***	
<i>Inter-IFRS</i>	(2)	-0.840 (4,440)	(5)	-0.851 (1,233)	(8)	-0.760 (3,922)	(2-5)	(2-8)***	(5-8)***	(2)	-0.840 (4,440)	(5)	-0.831 (1,233)	(8)	-0.726 (3,921)	(2-5)	(2-8)***	(5-8)***	
<i>Post-IFRS</i>	(3)	-0.773 (9,614)	(6)	-0.878 (2,952)	(9)	-0.772 (8,385)	(3-6)***	(3-9)	(6-9)***	(3)	-0.738 (9,614)	(6)	-0.950 (2,952)	(9)	-0.796 (8,385)	(3-6)***	(3-9)***	(6-9)***	
Within Country Tests		(1-2)*** (2-3)*** (1-3)***		(4-5)*** (5-6)** (4-6)***		(7-8)*** (8-9)* (7-9)***					(1-2)*** (2-3)*** (1-3)***		(4-5)*** (5-6)*** (4-6)***		(7-8)*** (8-9)*** (7-9)***				

<i>ConAccI</i>									<i>ConAccMoveAvg</i>								
	Code	GIPS	Common	Within Period Tests					Code	GIPS	Common	Within Period Tests					
<i>Pre-IFRS</i>	(1) -0.030 (8,037)	(4) -0.056 (1,855)	(7) 0.022 (7,689)	(1-4) ***	(1-7) ***	(4-7) ***	(1)		(1) -0.026 (6,068)	(4) -0.053 (1,412)	(7) 0.025 (5,977)	(1-4) ***	(1-7) ***	(4-7) ***			
<i>Inter-IFRS</i>	(2) 0.010 (5,161)	(5) -0.018 (1,318)	(8) 0.023 (4,461)	(2-5) ***	(2-8) ***	(5-8) ***	(2)		(2) 0.007 (4,673)	(5) -0.016 (1,158)	(8) 0.026 (3,805)	(2-5) ***	(2-8) ***	(5-8) ***			
<i>Post-IFRS</i>	(3) 0.003 (10,802)	(6) -0.001 (3,106)	(9) 0.015 (9,010)	(3-6) **	(3-9) ***	(6-9) ***	(3)		(3) 0.004 (9,858)	(6) -0.002 (2,834)	(9) 0.017 (7,690)	(3-6) ***	(3-9) ***	(6-9) ***			
Within Country Tests	(1-2) *** (2-3) *** (1-3) ***	(4-5) *** (5-6) *** (4-6) ***	(7-8) *** (8-9) *** (7-9) ***						(1-2) *** (2-3) ** (1-3) ***	(4-5) *** (5-6) *** (4-6) ***	(7-8) *** (8-9) *** (7-9) ***						

Code and common law countries are defined by La Porta et al. (1997, 1998). The countries of Greece, Portugal, Italy, and Spain form their own sub-group based on the GIPS moniker (Dainotto, 2006). Panel A shows the means for control variables by the country-type. *Size* = natural log of average assets averaged for year t and t-1. *Sales Growth* = the percentage change in sales going from year t-1 to year t. *CFO_TA* = operating cash flows divided by average assets. *Leverage* = total long term liabilities divided by average assets. Panel B shows the means for the unconditional form of conservatism. *Bkmkassets* = (book value of assets) / (book value of total assets + the market value of equity (which is calculated as the number of shares outstanding multiplied the closing stock price from the last day of the fiscal year) – book value of equity) multiplied by -1. *Bkmkequity* = book value of equity / market value of equity (where mv = common shares outstanding * the closing stock price from the last fiscal day of the year). *ConAccI* = (income before extraordinary items – cash flows from operations + depreciation expense) / average total assets from year t and year t-1 and then multiplied by -1. *ConAccMoveAvg* = (*ConAccI* at time t + *ConAccI* at time t-1 + *ConAccI* at time t+1) / 3*(-1). The first number in each 3x3 factorial design represents the mean for that variable given the type of country classification and time period. Pre-IFRS is from 1996-2001, Inter-IFRS from 2002-2004, while the Post-IFRS time period is from 2005-2010. The numbers in each box below the mean in parentheses represent the sample size for each of the factorial permutations. These are unbalanced panel data so a generalized linear model is used to test the differences between means for the different groups. Within Country Tests test for the difference between the pre-, inter- and post-IFRS time frames for a specific country group. Within Period Tests are used to test the difference of medians between pairs of different country groups in each of the three time periods. Significance of less than 0.10 is denoted by *, significance of less than 0.05 is denoted as **, and significance of less than 0.01 is denoted by ***. All variables are converted to British Pounds and are Winsorized at the top and bottom 5%.

Table 8: Tests of the Median and Standard Deviation

Panel A: Control Variables

	<i>Size</i>								<i>Sales</i>							
	Code	GIPS	Common	Within Period Tests					Code	GIPS	Common	Within Period Tests				
<i>Pre-IFRS</i>	(1) 4.690 1.830	(4) 6.727 2.014	(7) 3.989 1.895	(1-4)***	(1-7)***	(4-7)***			(1) 0.0659 0.687	(4) 0.104 0.789	(7) 0.088 0.512	(1-4)***	(1-7)***	(4-7)***		
<i>Inter-IFRS</i>	(2) 3.943 1.905	(5) 5.453 1.695	(8) 3.530 2.094	(2-5)***	(2-8)***	(5-8)***			(2) 0.065 0.397	(5) 0.084 0.350	(8) 0.060 0.505	(2-5)***	(2-8)***	(5-8)***		
<i>Post-IFRS</i>	(3) 4.040 2.001	(6) 5.266 1.615	(9) 3.611 2.115	(3-6)***	(3-9)***	(6-9)***			(3) 0.108 0.456	(6) 0.085 0.384	(9) 0.096 0.549	(3-6)***	(3-9)***	(6-9)***		
Within Country Tests	(1-2)*** (2-3)*** (1-3)***	(4-5)*** (5-6)*** (4-6)***	(7-8)*** (8-9)** (7-9)***						(1-2)*** (2-3)*** (1-3)***	(4-5)*** (5-6)*** (4-6)***	(7-8)*** (8-9)*** (7-9)***					
	<i>Cfo ta</i>								<i>Leverage</i>							
	Code	GIPS	Common	Within Period Tests					Code	GIPS	Common	Within Period Tests				
<i>Pre-IFRS</i>	(1) 0.016 0.109	(4) 0.000 0.075	(7) 0.097 0.145	(1-4)***	(1-7)***	(4-7)***			(1) 0.080 0.126	(4) 0.073 0.137	(7) 0.061 0.130	(1-4)***	(1-7)***	(4-7)***		
<i>Inter-IFRS</i>	(2) 0.061 0.122	(5) 0.002 0.076	(8) 0.068 0.163	(2-5)***	(2-8)***	(5-8)***			(2) 0.082 0.131	(5) 0.103 0.136	(8) 0.040 0.141	(2-5)***	(2-8)***	(5-8)***		
<i>Post-IFRS</i>	(3) 0.061 0.129	(6) 0.047 0.091	(9) 0.048 0.157	(3-6)***	(3-9)***	(6-9)***			(3) 0.077 0.135	(6) 0.148 0.141	(9) 0.030 0.144	(3-6)***	(3-9)***	(6-9)***		
Within Country Tests	(1-2)*** (2-3)** (1-3)***	(4-5)*** (5-6)*** (4-6)***	(7-8)*** (8-9)*** (7-9)***						(1-2)*** (2-3)* (1-3)***	(4-5)*** (5-6)*** (4-6)***	(7-8)*** (8-9)** (7-9)***					

Panel B: Unconditional Conservatism Variables

	<i>Bkmkassets</i>								<i>Bkmkequity</i>							
	Code	GIPS	Common	Within Period Tests					Code	GIPS	Common	Within Period Tests				
<i>Pre-IFRS</i>	(1) -0.871 0.335	(4) -0.948 0.387	(7) -0.701 0.339	(1-4)***	(1-7)***	(4-7)***			(1) -0.664 0.883	(4) -0.867 1.148	(7) -0.483 0.617	(1-4)***	(1-7)***	(4-7)***		
<i>Inter-IFRS</i>	(2) -0.848 0.295	(5) -0.866 0.254	(8) -0.746 0.335	(2-5)***	(2-8)***	(5-8)***			(2) -0.639 0.685	(5) -0.661 0.620	(8) -0.547 0.642	(2-5)***	(2-8)***	(5-8)***		
<i>Post-IFRS</i>	(3) -0.774 0.308	(6) -0.869 0.289	(9) -0.740 0.360	(3-6)***	(3-9)***	(6-9)***			(3) -0.562 0.619	(6) -0.673 0.796	(9) -0.557 0.749	(3-6)***	(3-9)***	(6-9)***		
Within Country Tests	(1-2)*** (2-3)*** (1-3)***	(4-5)*** (5-6)*** (4-6)***	(7-8)*** (8-9)*** (7-9)***						(1-2)*** (2-3)*** (1-3)***	(4-5)*** (5-6)*** (4-6)***	(7-8)*** (8-9)*** (7-9)***					

<i>ConAccI</i>										<i>ConAccMoveAvg</i>									
		Code		GIPS		Common	Within Period Tests					Code		GIPS		Common	Within Period Tests		
<i>Pre-IFRS</i>	(1)	-0.026 <i>0.088</i>	(4)	-0.051 <i>0.079</i>	(7)	0.021 <i>0.092</i>	(1-4)***	(1-7)***	(4-7)***	(1)	-0.024 <i>0.061</i>	(4)	-0.053 <i>0.055</i>	(7)	0.026 <i>0.063</i>	(1-4)***	(1-7)***	(4-7)***	
<i>Inter-IFRS</i>	(2)	0.004 <i>0.092</i>	(5)	-0.012 <i>0.077</i>	(8)	0.022 <i>0.100</i>	(2-5)***	(2-8)***	(5-8)***	(2)	0.003 <i>0.061</i>	(5)	-0.012 <i>0.057</i>	(8)	0.023 <i>0.069</i>	(2-5)***	(2-8)***	(5-8)***	
<i>Post-IFRS</i>	(3)	0.000 <i>0.091</i>	(6)	-0.002 <i>0.074</i>	(9)	0.008 <i>0.098</i>	(3-6)***	(3-9)***	(6-9)***	(3)	0.002 <i>0.060</i>	(6)	-0.002 <i>0.051</i>	(9)	0.010 <i>0.068</i>	(3-6)***	(3-9)***	(6-9)***	
Within Country Tests		(1-2)*** (2-3)*** (1-3)***		(4-5)*** (5-6)*** (4-6)***		(7-8)*** (8-9)*** (7-9)***					(1-2)*** (2-3)** (1-3)***		(4-5)*** (5-6)*** (4-6)***		(7-8)*** (8-9)*** (7-9)***				

Code and common law countries are defined by La Porta et al. (1997, 1998). The countries of Greece, Italy, Portugal, and Spain form their own sub-group based on the GIPS moniker (Dainotto, 2006). Panel A shows the medians for control variables by the country-type. The standard deviation is below that in italics. *Size* = natural log of average assets averaged for year t and t-1. *Sales Growth* = the percentage change in sales going from year t-1 to year t. *CFO_TA* = operating cash flows divided by average assets. *Leverage* = total long term liabilities divided by average assets. Panel B shows the means for the unconditional form of conservatism. *Bkmkassets* = (book value of assets) / (book value of total assets + the market value of equity (which is calculated as the number of shares outstanding multiplied the closing stock price from the last day of the fiscal year) – book value of equity) multiplied by -1. *Bkmkequity* = book value of equity / market value of equity (where mv = common shares outstanding * the closing stock price from the last fiscal day of the year). *ConAccI* = (income before extraordinary items – cash flows from operations + depreciation expense) / average total assets from year t and year t-1 and then multiplied by -1. *ConAccMoveAvg* = (*ConAccI* at time t + *ConAccI* at time t-1 + *ConAccI* at time t+1) / 3*(-1). The first number in each 3x3 factorial design represents the median and the second represents the standard deviation for that variable given the type of country classification and time period. Pre-IFRS is from 1996-2001, Inter-IFRS is 2002-2004, and the Post-IFRS time period is from 2005-2010. The numbers in each box below the median represents the standard deviation for each of the factorial permutations. Within Country Tests test for the difference in median between the pre-, inter- and post-IFRS time frames for a specific country group. Within Period Tests are used to test the difference of medians between pairs of different country groups in each of the three time periods, The Kolmogorov-Smirnov test is used to test for significance of a difference in medians. Significance of less than 0.10 is denoted by *, significance of less than 0.05 is denoted as **, and significance of less than 0.01 is denoted by ***. All variables are converted to British Pounds and are Winsorized at the top and bottom 5%.

countries have a relatively constant *leverage* at their respective means. However, the medians show that common law countries decrease from their high prior to IFRS in each subsequent time period while GIPS countries show an increase in each time period.

Prior to IFRS, common law countries exhibited the most conservatism in regards to the book to market of assets, followed by GIPS, and then code law countries. However, in the intermediate years, Code and GIPS countries had on average the same book to market of assets and in the post-IFRS time period, code and common law observations had on average the same amount of the book to market of assets. GIPS exhibit a slight decrease in the intermediate time period before increasing, but not up to their pre-IFRS level. *Bkmkequity* is more conservative for common law countries as determined by the mean in the pre- and intermediate- years, but for code law countries after the implementation of IFRS. GIPS and common law observations increase in their level of conservatism between the pre- and intermediate- and pre- and post-IFRS time frames whereas code law countries show a consistent increase in each time frame. Common law countries exhibit more conservatism prior to IFRS as measured by the one-period measure of accruals. Their level of conservatism decreases in the post-IFRS time period. Their Code law countries increase their level of conservatism in the intermediate time period, only to lessen their one period measure of accruals in the post-IFRS years. GIPS exhibit the least amount of conservatism but show greater levels in each subsequent time period. The moving average shows the highest level of conservatism prior to IFRS. The intermediate-period is similar to the pre-IFRS levels, and they exhibit a decline in the level of conservatism post-IFRS. Code law countries have a lower level of conservatism across all time periods, but they increase their level of conservatism starting in the intermediate time period. Their level of conservatism decreases slightly from the intermediate time to the post-IFRS time, but the amount is still much greater than the post-IFRS time

period. GIPS countries have the lowest level of conservatism in all three time periods, but they do show the greatest increase in conservatism between the 1996-2001 time-frame and 2002-2004.

4.2 Correlations between Unconditional Conservatism Variables and Control Variables

Table 9 shows correlations between unconditional conservatism variables and four control variables separated by country-grouping. Many of the relationships between the control variables and the unconditional conservative dependent variables change over time. The correlations are shown in three distinct time periods. The top number in each correlation group represents the correlations that exist prior to the implementation of IFRS but before the EU countries knew they'd have to switch to IFRS which encompasses the years 1996 to 2001. The middle number represents the transitions years of 2002-2004. During this time, firms knew they had to switch per EU mandate for financial statements as of January 1, 2005. The last number in each grouping represents the correlations after the implementation of mandatory IFRS across the EU.

The relationships between the variables also are different dependent on the country classification. There is a significantly negative relationship between size and both of the book to market measures for code law countries in both the pre- and the post-IFRS time periods. The intermediate time period has different results, though, for the book to market of equity. During that time, there is no statistically significant correlation between size and the book to market of equity. Common law countries show a negative and significant relationship between size and the book to market of assets in every time frame for the book to market measures except there is no correlation between the book to market of equity and size in the pre-IFRS years. GIPS countries show a different pattern in their correlations over time for size and the book to market variables. They exhibit a statistically significant negative relationship prior to IFRS, but a statistically significant positive relationship post-IFRS.

Table 9: Correlations with Unconditional Conservatism

Panel A: Code Law Observations

	<i>Bkmkequity</i> 1	<i>Bkmkassets</i>	<i>ConAcc1</i>	<i>ConAccMoveAvg</i>
<i>Bkmkequity</i>	1			
<i>Bkmkassets</i>	0.858*** 0.850*** 0.866***	1		
<i>ConAcc1</i>	0.030** -0.042*** -0.059***	-0.012 -0.061*** -0.078***	1	
<i>ConAccMoveAvg</i>	0.031** -0.037** -0.084***	-0.005 -0.064*** -0.099***	0.674*** 0.613*** 0.602***	1
<i>Size</i>	-0.121*** -0.010 -0.120***	-0.154*** -0.083*** -0.185***	0.035*** -0.024* 0.014	-0.007 -0.042*** 0.001
<i>Sales</i>	-0.262*** 0.093*** 0.069***	-0.125*** 0.145*** 0.121***	-0.118*** -0.066*** -0.105***	-0.097*** -0.101*** -0.064***
<i>Cfo_ta</i>	-0.024** 0.046*** 0.005	-0.011 0.061*** -0.009	0.334*** 0.254*** 0.258***	0.125*** 0.057*** 0.051***
<i>Leverage</i>	-0.111*** 0.026* -0.028***	-0.136*** -0.064*** -0.110***	-0.004 0.002 0.015	-0.006 0.001 0.029***

Panel B: GIPS Observations

	<i>Bkmkequity</i> 1	<i>Bkmkassets</i>	<i>ConAcc1</i>	<i>ConAccMoveAvg</i>
<i>Bkmkequity</i>	1			
<i>Bkmkassets</i>	0.911*** 0.847*** 0.868***	1		
<i>ConAcc1</i>	0.022 -0.023 -0.040**	-0.071** -0.077*** -0.065***	1	
<i>ConAccMoveAvg</i>	-0.055** 0.007 -0.097***	-0.121*** -0.051* 0.113***	0.756*** 0.756*** 0.654***	1
<i>Size</i>	-0.591*** 0.056* 0.096***	-0.552*** 0.018 0.056***	0.120*** 0.014 0.062***	0.137*** -0.048 0.102***
<i>Sales</i>	-0.576*** 0.101*** 0.133***	-0.450*** 0.117*** 0.137***	-0.176*** -0.143*** -0.193***	-0.084*** -0.045 -0.182***

<i>Cfo_ta</i>	-0.049** 0.146*** 0.150***	-0.050** 0.200*** 0.189***	0.536*** 0.469*** 0.455***	0.431*** 0.309*** 0.207***
<i>Leverage</i>	-0.249*** 0.059** 0.082***	-0.203*** -0.017 0.026	-0.037 0.024 0.024	0.003 0.025 0.073***

Panel C: Common Law Observations

	<i>Bkmkequity</i> 1	<i>Bkmkassets</i>	<i>ConAcc1</i>	<i>ConAccMoveAvg</i>
<i>Bkmkequity</i>				
<i>Bkmkassets</i>	0.896*** 0.885*** 0.890***	1		
<i>ConAcc1</i>	-0.008 0.005 -0.027**	-0.028** -0.028* -0.000	1	
<i>ConAccMoveAvg</i>	-0.013 -0.011 -0.043***	-0.018 -0.025 -0.012	0.623*** 0.598*** 0.593***	1
<i>Size</i>	-0.003 -0.085*** -0.061***	-0.085*** -0.196*** -0.156***	0.017 0.050*** -0.053***	-0.011 0.029* -0.088***
<i>Sales</i>	0.127*** 0.107*** 0.093***	0.181*** 0.152*** 0.123***	-0.070*** -0.090*** -0.062***	-0.058*** -0.083*** -0.028**
<i>Cfo_ta</i>	-0.071*** -0.043*** -0.038***	0.027** -0.126*** -0.106***	0.286*** 0.278*** 0.128***	0.155*** 0.143*** -0.043***
<i>Leverage</i>	0.079*** 0.067*** 0.057***	0.006 0.003 -0.007	0.087*** 0.079*** 0.029***	0.090*** -0.096*** 0.032***

Each panel shows the correlation between unconditional conservative variables and control variables. Panel A reports the results for code-law countries as defined by La Porta et al. (1997, 1998). Panel B reports the results for the sub-group based on the GIPS moniker, Greece, Italy, Portugal, and Spain (Dainotto, 2006). Panel C reports the results for common law countries as defined by La Porta et al. (1997, 1998) except for the Netherlands. *Bkmkassets* = (book value of assets)/(book value of total assets + the market value of equity (which is calculated as the number of shares outstanding multiplied the closing stock price from the last day of the fiscal year) – book value of equity). *Bkmkequity* = book value of equity / market value of equity (where mv = common shares outstanding * the closing stock price from the last fiscal day of the year). *ConAcc1* = (income before extraordinary items – cash flows from operations + depreciation expense) / average total assets from year t and year t-1. *ConAccMoveAvg* = (*ConAcc1* at time t + *ConAcc1* at time t-1 + *ConAcc1* at time t+1) / 3. All 4 measures of unconditional conservatism (*Bkmkequity*, *Bkmkassets*, *ConAcc1*, *ConAccMoveAvg*) are multiplied by -1 for interpretational reasons so positive numbers indicate higher levels of conservatism (Ahmed and Duellman, 2007). *Size* = natural log of average assets averaged for year t and t-1. *Sales Growth* = the percentage change in sales going from year t-1 to year t. *CFO_TA* = operating cash flows divided by average assets. *Leverage* = total long term liabilities divided by average assets. The first number is the correlation between two variables in the pre-IFRS time period (1996-2001). The second number is the correlations between two variables in the inter-IFRS time period (2002-2004). The number below that in the same cell is the correlation between the two variables in the post-IFRS time period (2005-2010). Significance of less than 0.10 is denoted by *, significance of less than 0.05 is denoted by **, and significance of less than 0.01 is denoted by ***. All variables are converted to British Pounds and are Winsorized at the top and bottom 5%.

The intermediate years reflect a period of transition since the correlations lie beneath the percentages pre- and post-IFRS. It is only marginally significant at 0.10 for the book to market of equity and is insignificant for the book to market of assets. The correlations differ between size and the accruals measures of unconditional conservatism. The relationship between size and the one-period accruals measure is significantly positive in the pre-IFRS time period, significantly negative in the intermediate time period, and insignificant in the post-period for code law countries. For GIPS observations, there is a significantly positive correlation for GIPS countries prior to IFRS for both accruals measures. The correlations are also significant post-IFRS. However, from 2002-2004, the correlation is insignificant for both accruals measures. Size is insignificant for both accruals measures in the pre-IFRS time period. The correlations are positive and significant in the intermediate time period. The moving average measure is only marginally significant at 0.10. The relationships are significantly negative for both measures in the post-IFRS time period.

The relationships are similar between code law countries and GIPS countries for conservatism measures correlated with sales. The book to market measures are all negative and significant prior to IFRS, and positive and significant in the intermediate and post time periods. They also all exhibit significant and negative relationships in all time periods for the two accruals measures, except for GIPS countries in the intermediate period for the moving average of accruals which is insignificant.

Correlations between sales and unconditional conservatism variables differ from the results of code and GIPS results. They exhibit significant correlations that are positive across all time periods for the book to market measures and negative across all time periods for accruals measures.

Cfo_ta, the proxy for profitability, is not correlated in the pre-IFRS time period or the post-IFRS time period with the book to market measures for code law countries except for a small, negative relationship (less than 0.10) pre-IFRS for code law countries. However, both measures show a

significantly positive relationship in the intermediate time period. GIPS countries exhibit a negative and significant relationship prior to IFRS, but in the two following time periods, there is a significantly positive relationship. Common law countries, for the book to market measures, are significant and negative in every time period except for pre-IFRS for the book to market of assets which is significant and positive but only at 0.05. All accruals measures are significant and positive in all time periods across all country types except for common law countries in the post-IFRS time period for the moving average measure of accruals.

Leverage correlations differ greatly between country types, time periods, and measures of unconditional conservatism. Code law countries have a significant negative relationship for the book to market of equity prior to and after IFRS implementation but have a marginally positive (0.10) relationship in the intermediate time period. The relationship is negative and significant in all time periods for the book to market of assets. GIPS have a significant negative relationship prior to IFRS for both book to market measures. In the intermediate and post-IFRS time periods, the book to market of equity has a positive and significant correlation. The relationship is insignificant for the intermediate and post-IFRS periods for the book to market of assets and the one period measure of accruals. The moving average measure of accruals has an insignificant relationship in the intermediate time period but a positive and significant relationship with leverage post-IFRS.. Common law observations remain statistically significant and positive in all three time periods for the book to market of equity but insignificant for all three time periods for the book to market of assets. The accruals measures also show quite a bit of variability based on country-type. Code law countries and GIPS both show no correlational significance with either accruals measure in the pre-IFRS or intermediate time frames. The relationship is also insignificant in the post-IFRS time period for the one period measure of accruals. However, there is positive and significant correlation at less than 0.01 after the implementation of IFRS for the moving

average measure of accruals. Common law countries show a statistically significant and positive relationship over all there time periods for the one period measure of accruals. For the moving average measure, there is a positive significant relationship before and after IFRS, but that relationship is negative and significant in the intermediate time period.

The relationships between the unconditional conservatism variables themselves change between the pre-IFRS (1996-2001), intermediate (2002-2004), and post-IFRS (2005-2010) time periods based on country classifications for most control variables.²⁶ The relationship between the book to market of equity and the one period measure of accruals is positive and significant at 0.05 for code law countries in the pre-IFRS time period. That relationship becomes negative and significant in the intermediate and post-IFRS time periods. GIPS and common law observations show no correlation in the pre- or intermediate- periods, but are negative and significant at 0.05 post-IFRS.

The correlation between the one period measure of accruals and the book to market of assets is significant and negative in the inter- and post- time periods for code law countries. GIPS countries are significant and negative in all three time periods. Common law countries show a different pattern of results. There is a negative correlation that is significant at 0.05 prior to IFRS, which becomes significant at 0.10 in the intermediate time period, which becomes insignificant post-IFRS.

The book to market of equity has a positive and significant relationship with the moving average accruals measure for code law countries in the pre-IFRS time period. The relationship becomes negative and significant in the intermediate and post-IFRS time periods. The correlations for GIPS observations are negative and significant in the pre- and post-IFRS time periods but insignificant in the intermediate time. Common law countries only show a negative and significant correlation post-IFRS; that is the only

²⁶ Not surprisingly, the relationships are all positive and significant for all country types in all time periods when comparing similar dependent variables (book to market of equity compared to the book to market of assets and comparing the one period accruals to the moving average accruals).

time period where there is a significant correlation for common law countries between those two variables.

All three country types also show differences in correlations between the moving accruals measure of conservatism and the book to market of assets. Code law countries show no statistically significant relationship from 1996-2002, but show a significantly negative relationship from 2002-2004 and from 2005-2010. GIPS countries originally exhibit a negatively significant correlation from 1996-2002, then show a marginally negative correlation from 2002-2004 (at 0.10), and then have a positive and significant correlation from 2005-2010. There is no significant correlation for common law countries in any of the time periods.

Table 10 shows the correlations between country-specific variables like La Porta's rule of law, anti-self-dealing, creditor rights, the use of the Euro, and for firms in industries associated with technology. The relationships between institutional variables and unconditional conservatism measures also show differences between country groupings and between time periods.

Rule of Law has a positive relationship with the book to market of equity in the pre- and post-IFRS time periods for common and code law countries. However, code law countries have an insignificant correlation in the inter-IFRS era while common law countries are negative and significant during the inter-IFRS years. For GIPS observations, the relationship is negative and significant in the pre-time period. The relationship remains significant in the inter- and post-IFRS time period but it moves to exhibiting a positive correlation post-IFRS. The relationship between the book to market of assets and rule of law differs. There is a positive and significant relationship between all three time periods for code law countries. The results for code law are the same as they were for the book to market of equity; there is a negative and significant correlation prior to IFRS and there is a positive and significant relationship in the intermediate and post-IFRS years.

Table 10: Correlations with Unconditional Conservatism and Country Institutional Variables

Panel A: Code Law Observations

	<i>Bkmkequity</i>	<i>Bkmkassets</i>	<i>ConAccI</i>	<i>ConAccMoveAvg</i>
<i>RuleofLaw</i>	0.081*** -0.007 0.040***	0.089*** 0.047*** 0.088***	0.053*** -0.008 0.002	0.043*** -0.027* 0.011
<i>Anti-SelfDeal</i>	-0.034*** 0.085*** 0.007	-0.011 0.066** 0.012	-0.028** -0.042*** 0.002	-0.048*** -0.042*** 0.004
<i>CreditorRights</i>	0.122*** -0.149*** -0.002	0.086*** -0.110*** 0.018*	0.039*** 0.017 -0.012	0.040*** -0.004 -0.013
<i>UseEuro</i>	0.161*** -0.040*** -0.058***	0.128*** -0.088*** -0.117***	0.099*** -0.013 -0.028***	0.139*** -0.015 -0.050***
<i>Techno</i>	0.119*** 0.077*** 0.088***	0.193*** 0.130*** 0.150**	0.009 0.074*** 0.019**	0.055*** 0.105*** 0.053***

Panel B: GIPS Observations

	<i>Bkmkequity</i>	<i>Bkmkassets</i>	<i>ConAccI</i>	<i>ConAccMoveAvg</i>
<i>RuleofLaw</i>	-0.245*** 0.138*** 0.288***	-0.343*** 0.088*** 0.240***	0.270*** 0.113*** 0.034**	0.317*** 0.181*** 0.058***
<i>Anti-SelfDeal</i>	-0.250*** 0.142*** 0.289***	-0.348*** 0.091*** 0.242***	0.270*** 0.110*** 0.034*	0.317*** 0.177*** 0.056***
<i>CreditorRights</i>	-0.224*** 0.175*** 0.273***	-0.274*** 0.141*** 0.257***	0.050** -0.081*** 0.013	0.043 -0.055* 0.007
<i>UseEuro</i>	0.284*** 0.025 0.027	0.206*** 0.027 0.035*	0.244*** -0.065** 0.000	0.203*** -0.034 -0.007
<i>Techno</i>	-0.008 0.059** 0.124***	0.013 0.086*** 0.145***	0.026 0.012 -0.042**	0.048* 0.029 -0.062***

Panel C: Common Law Observations

	<i>Bkmkequity</i>	<i>Bkmkassets</i>	<i>ConAccI</i>	<i>ConAccMoveAvg</i>
<i>RuleofLaw</i>	0.026** -0.037** 0.042***	0.010 -0.056*** 0.015	-0.146*** -0.062*** -0.022**	-0.208*** -0.094*** -0.044***

<i>Anti-SelfDeal</i>	-0.031*** 0.036** -0.028**	-0.013 0.057*** -0.002	0.155*** 0.056*** 0.016	0.227*** 0.087*** 0.032***
<i>CreditorRights</i>	-0.031*** 0.026 0.002	-0.014 0.044*** 0.017	0.129*** 0.031** 0.002	0.193*** 0.053*** 0.004
<i>UseEuro</i>	0.015 -0.013 0.008	-0.008 -0.040** -0.012	-0.066*** -0.032** -0.013	-0.105*** -0.066*** -0.022**
<i>Techno</i>	0.141*** 0.127*** 0.11***	0.206*** 0.178*** 0.159***	-0.042*** -0.057*** 0.008	-0.042*** -0.069*** 0.016

Each panel shows the correlation between unconditional conservative variables and control variables. Panel A reports the results for code-law countries as defined by La Porta et al. (1997, 1998). Panel B reports the results for the sub-group based on the GIPS moniker, Greece, Italy, Portugal, and Spain (Dainotto, 2006). Panel C reports the results for common law countries as defined by La Porta et al. (1997, 1998) except for the Netherlands. *Bkmkassets* = (book value of assets)/(book value of total assets + the market value of equity (which is calculated as the number of shares outstanding multiplied the closing stock price from the last day of the fiscal year) – book value of equity). *Bkmkequity* = book value of equity / market value of equity (where *mv* = common shares outstanding * the closing stock price from the last fiscal day of the year). *ConAcc1* = (income before extraordinary items – cash flows from operations + depreciation expense) / average total assets from year *t* and year *t*-1. *ConAccMoveAvg* = (*ConAcc1* at time *t* + *ConAcc1* at time *t*-1 + *ConAcc1* at time *t*+1) / 3. All 4 measures of unconditional conservatism (*Bkmkequity*, *Bkmkassets*, *ConAcc1*, *ConAccMoveAvg*) are multiplied by -1 for interpretational reasons so positive numbers indicate higher levels of conservatism (Ahmed and Duellman, 2007). *RuleofLaw* = measurement of the legal enforcement in a country (La Porta et al., 1997, 1998). It is the average bi-yearly score from 0 to 6 from 1982 to 1995 and rescaled from 0 to 10 where higher numbers represent higher rule of law. *Anti-SelfDeal* = proxy for shareholder rights where a country gets a point for one of 5 categories that represents shareholder rights (La Porta et al., 1997, 1998). *CreditorRights* = aggregate measure from La Porta et al. (1997, 1998) from 0 to 4 based on the rights of creditors in a country. *UseEuro* = an indicator variable equal to one if the accounting information is measured in Euros in Compustat Global. *Techno* = indicator variable that equals to 1 if the firm is in a high-tech industry as defined by Field et al. (2005). The first number is the correlation between two variables in the pre-IFRS time period (1996-2001). The second number in each column is composed of the intermediate time period (2002-2004). The number below that in the same cell is the correlation between the two variables in the post-IFRS time period (2005-2010). Significance of less than 0.10 is denoted by *, significance of less than 0.05 is denoted as **, and significance of less than 0.01 is denoted by ***. All dependent variables are converted to British Pounds and are Winsorized at the top and bottom 5%.

Common law countries only exhibit correlational significance for the inter-IFRS observations where a negative relationship is observed. Results vary for the accruals measures of conservatism in regards to rule of law. Code law countries show a significant correlation between the rule of law and both accruals measures in the 1996-2001 years when the correlation is positive. The correlation is insignificant during the intermediate time period for the one period measure of accruals and is weakly significantly negative for the moving average measure. Both accruals measures exhibit no correlation to rule of law after IFRS for code law observations. GIPS observations, across all three time periods, have a positive and

significant correlation with both accruals measures. Rule of law has a significant, negative correlation with both accruals variables in all three time periods for common law countries.

Consistent with the other variables, *Anti-SelfDeal* also shows different correlations in the different time periods based on country classification. There is a significant negative correlation in the pre-time period, significant positive correlation in the intermediate time period, and there is no statistical relationship post-IFRS for the book to market of equity in regards to code law countries. The book to market of assets has similar relationships in the intermediate and post-IFRS time periods but there is no correlation in the pre-IFRS years. GIPS observations exhibit a statistically significant negative relationship prior to IFRS and a significant positive relationship in the intermediate-IFRS and post-IFRS time periods for both book to market measures. For common law countries, there is a negative relationship prior to IFRS for both book to market measures. However, the relationship is only significant for the book to market of equity. Both book to market measures exhibit a positive and significant relationship in the intermediate years. The correlation becomes negative and significant after IFRS for the book to market of equity and becomes insignificant for the book to market of assets. Those results show that the correlations go back to the same relationship they had prior to IFRS and that the intermediate time results differ from both the pre-and post- IFRS time periods for both accruals measures. There are more consistent correlations when it comes to the accruals measures of conservatism. Code law countries have a significantly negative relationship in the pre- and inter-IFRS years but no significant correlation post-IFRS for both accruals measures. GIPS and common law firms have a significant positive correlation before IFRS and during the transition time period for both accruals measures. After IFRS, the moving average accruals measure also has a significantly positive correlation for both measures for both GIPS and common observations. The post-period is weakly

significant (at less than 0.10) for GIPS and is insignificant for common law observations for the one period measure of accruals.

La Porta's *CreditorRights* correlations also exhibit differentiating correlations based on country classification and time period. Code law countries show a positive (and significant) correlation between creditor rights and the book to market measures in the 1996-2001 time period. The significance remains, but the relationship becomes negative in the observations from 2002-2004. The correlation becomes insignificant for the book to market of equity after 2005 and it becomes significant again for the book to market of assets, but at 0.05. GIPS observations have a negative and significant correlation from 1996-2001, and then the correlation becomes positive in the two time periods after that, with the correlation percentage increasing between the intermediate and post time periods. Common law observations have more mixed results. The correlation is significant in the pre-time period for the book to market of equity but is insignificant for the book to market of assets. There is no longer significance either in the intermediate or post-IFRS time periods for the book to market of equity. The intermediate time period exhibits a statistically significant positive correlation during the intermediate years but the relationship reverts back to insignificant after IFRS. Both accruals measures have a positive statistical correlation before and during the transition years but both become insignificant after IFRS.

Creditor rights show a significantly positive correlation with both measures of accruals in the pre-IFRS years. This correlation becomes insignificant in the inter- and post-years. GIPS have a significant positive relationship pre-IFRS, but only for the one period measure of accruals. Both accruals measures have a negative and significant correlation in the inter-time period, and both are insignificant post-IFRS. Both accruals measures have a positively significant correlation in the pre- and intermediate-years for common law countries. However, the correlation decreases in each time period until the post-IFRS years when it becomes insignificant.

The use of the Euro has differential correlations depending on country type and time frame. However, both code law and GIPS observations show a positive and significant correlation in the pre-IFRS time period. Code law countries have a negative significant correlation in the intermediate years with the use of the euro, but only for the book to market variables. There is no significance for code law countries for the accruals measures during the intermediate years. GIPS correlations are insignificant in the inter-IFRS years except for a negative and significant correlation with the one period measure of accruals that has a statistically significant correlation during that time frame. Code law countries have a significantly negative correlation in the post-IFRS time period across all four unconditional conservatism measures. The pattern that emerges for code law countries is that the relationship goes from negative to positive over time with the higher positive correlations in the post-IFRS years. GIPS observations remain insignificant post-IFRS except for a marginally significant correlation post IFRS for the book to market of assets. Common law correlations differ quite a bit from both of these. Most correlations for these are insignificant in all time periods for both book to market measures except for a significant (and negative) correlation in the intermediate time frame for the book to market of assets. The use of the Euro has a negative correlation with both measures of accruals in the pre- and intermediate-years. The correlation is insignificant in the post-IFRS time period with the one period measure of accruals but is significant in the post-IFRS time period for the moving average accruals measure.

Correlations between technological firms (*Techno*) and the measures of conservatism also differ by country distinction. Code law countries have a positive and significant correlation for the technology sector across all four measures of unconditional conservatism and across all three time periods for all the measures. The lone exception is an insignificant result for the one period measure of accruals in the pre-IFRS years. GIPS correlations differ based on the unconditional conservatism variables. For the book to

market variables, there is an insignificant correlation from 1996-2001. There is a positive and significant correlation in 2002-2004 and from 2005-2010. The correlations for these become more positive over time. The correlations with the accruals measures differ. They are insignificant in the pre- and intermediate-IFRS years except for a marginally significantly positive result at 0.01 in the pre-IFRS time period for the moving average accruals measure. There is a statistically significant negative relationship post-IFRS. The correlations for common law countries also differ by unconditional variables type. Book to market measures are all positive and significant across all three time periods. The correlation percentage does decrease over time, although all p-values remain at less than 0.01. The accruals measures have a negative and significant relationship in the pre-IFRS and intermediate-IFRS years and are both insignificant post-IFRS.

4.3 Chow Tests for Structural Breaks for Unconditional Conservatism

Chow tests are used to see if there are structural breaks in the data since firms may have begun to alter their behavior when they learned of the impending mandatory IFRS time period. Firms were notified in 2002 that all publicly traded companies would need to report using IFRS as of 2005. Therefore, 2002 to 2004 may not be indicative of normal reporting behavior prior to IFRS or after IFRS while firms began to adjust behavior for the impending deadline. A Chow test is a joint F-test that tests if the residuals differ before and after the break points. If there is a significant difference, then the results would indicate a structural break exists (Calise and Earley, 2006). Chow tests are used for all four measures of unconditional conservatism. All data were sorted by date and classified into three time periods, pre-IFRS from 1996-2001, inter-IFRS for 2002-2004 and post-IFRS for 2005. The data points that were associated with each new time period for each sample run were identified and the appropriate Chow tests were performed.

The four measures of unconditional conservatism were described above. They are the book to market of assets, the book to market of equity, a one period measure of accruals, and a moving average accruals measure. There are five regressions run for each measure. The first creates a simple classification of firms as either code law or common law based on La Porta et al. (1997, 1998) except for The Netherlands, which is classified as common law. An indicator variable, *CommonDum*, is equal to one if the firm is headquartered in a common law country, zero otherwise. The second regression run for each dependent variable creates a finer country-level indicator. Firms are classified based on their headquarters in either code law, common law, or GIPS countries (Greece, Italy, Portugal, and Spain). Two indicator variables are used for this. One is an indicator variable, *CommonDum*, which is still defined as one for common law, zero otherwise. An additional indicator, *GIPSDum*, is used to separate out firms associated with GIPS countries. The third regression is run just for code law observations, while the fourth regression is for GIPS observations, and the fifth regression is for common law observations.²⁷

The results of the Chow tests are presented in Table 11. All four measures of unconditional conservatism show significant F-tests between the time period prior to IFRS knowledge and the IFRS inter temporal time period and between the IFRS inter time. This indicates a structural change across time-series data. If there are structural changes at, before, and after the intermediate time period, observations from those years should be excluded from the regression since they are not indicative of the behavior of the pre- or post-time periods. Excluding those observations allows for a clearer look at the effect of IFRS without the transitional time period affecting the results.

²⁷ *RuleofLaw* was excluded from the common law regressions. For common law countries, there is not enough variation and because of this, rule of law is a linear combination of anti-director rights and creditor rights. Therefore, rule of law is excluded for the common law only regressions.

Table 11: Structural Change Tests for Unconditional Conservatism

	<i>Bkmkassets</i>					<i>Bkmkequity</i>				
	All (1)	All (2)	Code (3)	GIPS (4)	Common (5)	All (1)	All (2)	Code (3)	GIPS (4)	Common (5)
<i>Intercept</i>	-1.020***	-1.066***	-1.595***	-9.530***	-0.690***	-1.754***	-1.730***	-2.441***	-22.169***	-0.697***
<i>Size</i>	-0.024***	-0.025***	-0.022***	-0.040***	-0.020***	-0.049***	-0.049***	-0.042***	-0.126***	-0.020***
<i>Sales</i>	0.021***	0.021***	0.004	-0.090***	0.087***	-0.084***	-0.084***	-0.143***	-0.387***	0.128***
<i>Cfo_ta</i>	0.205***	0.207***	0.202***	0.606***	0.163***	0.428***	0.427***	0.316***	1.318***	0.359***
<i>Leverage</i>	0.006	0.005	-0.147***	0.039	0.145***	0.285***	0.285***	0.011	0.415***	0.471***
<i>RuleofLaw</i>	0.025***	0.029***	0.100***	2.289***		0.087***	0.084***	0.187***	5.517***	
<i>Anti-SelfDeal</i>	0.035***	0.040***	-0.128***	-25.921***	-0.069***	0.177***	0.174***	-0.257***	-61.695***	-0.182***
<i>CredRights</i>	0.003**	0.003*	-0.012**	0.306***	0.002	0.017***	0.017***	-0.016***	0.741***	0.017
<i>CommonDum</i>	0.065***	0.069***				0.158***	0.156***			
<i>GIPSDum</i>		0.015**					-0.008			
<i>UseEuro</i>	0.043***	0.043***	0.048***	0.068***	-0.032**	0.231***	0.231***	0.195***	0.428***	-0.044
<i>Techno</i>	0.122***	0.122***	0.104***	0.080***	0.147***	0.189***	0.189***	0.162***	0.120***	0.232***
R ²	0.068	0.063	0.061	0.130	0.061	0.063	0.063	0.053	0.217	0.037
Break Point1	16,590	16,590	7,263	1,793	7,536	16,584	16,584	7,261	1,793	7,532
F-test	97.05***	94.66***	55.81***	131.26***	23.77***	171.36***	169.11***	92.59***	160.21***	17.80***
Break Point2	26,185	26,185	11,703	3,026	11,458	26,178	26,178	11,701	3,026	11,453
F-test	58.77***	55.21***	38.36***	68.63***	13.76***	97.90***	93.90***	49.45***	92.14***	16.27***

	<i>ConAcc1</i>					<i>ConAccMoveAvg</i>				
	All (1)	All (2)	Code (3)	GIPS (4)	Common (5)	All (1)	All (2)	Code (3)	GIPS (4)	Common (5)
<i>Intercept</i>	-0.063***	-0.047***	-0.149***	2.869***	-0.019***	-0.074***	-0.048***	-0.143***	2.790***	-0.016***
<i>Size</i>	-0.005***	-0.005***	-0.005***	0.000	-0.006***	-0.003***	-0.003***	-0.002***	-0.001	-0.003***
<i>Sales</i>	-0.016***	-0.016***	-0.018***	-0.025***	-0.011***	-0.010***	-0.010***	-0.011***	-0.011***	-0.008***
<i>Cfo_ta</i>	0.224***	0.223***	0.251***	0.442***	0.181***	0.066***	0.065***	0.060***	0.181***	0.054***
<i>Leverage</i>	0.037***	0.037***	0.026***	0.020***	0.054***	0.038***	0.038***	0.026***	0.038***	0.047***
<i>RuleofLaw</i>	0.004***	0.002**	0.019***	-0.776***		0.005***	0.002***	0.017***	-0.755***	
<i>Anti-SelfDeal</i>	0.043***	0.042***	-0.090***	8.866***	0.050***	0.045***	0.04***	-0.069***	8.641***	0.045***
<i>CredRights</i>	0.003***	0.003***	-0.003***	-0.092***	0.000	0.002***	0.002***	-0.003***	-0.089***	0.000
<i>CommonDum</i>	0.007***	0.006***				0.011***	0.009***			
<i>GIPSDum</i>		-0.005***					-0.009***			
<i>UseEuro</i>	0.020***	0.020***	0.017***	0.040***	0.016***	0.018***	0.018***	0.018***	0.040***	0.011***
<i>Techno</i>	0.013***	0.013***	0.017***	-0.003	0.007***	0.008***	0.008***	0.013***	-0.005**	0.001
R ²	0.135	0.134	0.126	0.356	0.084	0.094	0.095	0.051	0.263	0.037
Break Point	17,582	17,582	8,038	1,856	7,690	13,458	13,458	6,069	1,413	5,978
F-test	65.64***	60.91***	50.68***	18.93***	7.72***	105.91***	99.37***	72.09***	22.14***	18.13***
Break Point	28,522	28,522	13,199	3,174	12,151	23,094	13,458	10,742	2,571	9,783
F-test	46.01***	43.49***	28.61***	27.11***	15.20***	81.20***	76.51***	40.24***	34.70***	33.60***

Chow tests used to test for a structural break between the pre- IFRS (1996-2001), inter-IFRS (2002-2004), and post-IFRS (2005-2010) time periods. Each of the four unconditional conservative measures are tested separately. *Bkmkassets* = book value of assets/(book value of total assets + the market value of equity (which is calculated as the number of shares outstanding multiplied the closing stock price from the last day of the fiscal year) – book value of equity). *Bkmkequity* = book value of equity / market value of equity (where $mv = \text{common shares outstanding} * \text{the closing stock price from the last fiscal day of the year}$). *ConAcc1* = (income before extraordinary items – cash flows from operations + depreciation expense) / average total assets from year t and year t-1. *ConAccMoveAvg* = (*ConAcc1* at time t + *ConAcc1* at time t-1 + *Conacc1* at time t+1) / 3. All 4 measures of unconditional conservatism (*Bkmkequity*, *Bkmkassets*, *ConAcc1*, *ConAccMoveAvg*) are multiplied by -1 for interpretational reasons so positive numbers indicate higher levels of conservatism (Ahmed and Duellman, 2007). There are 5 regressions run for each of the dependent variables. All regressions use size, sales, *cfo_ta*, and leverage as control variables. *Size* = natural log of average assets averaged for year t and t-1. *Sales Growth* = the percentage change in sales going from year t-1 to year t. *CFO_TA* = operating cash flows divided by average assets. *Leverage* = total long term liabilities divided by average assets. *RuleofLaw*, *Anti-SelfDeal*, and *CredRights* all measure institutional factors *RuleofLaw* = scale of 0 to 10 and is a monthly average from 1982 to 1995 of the tradition of law and order from the International Country Risk Guide (La Porta et al. 1997, 1998). *Anti-SelfDeal* = a measure of shareholders rights on a scale from 0 to 1 where a score of 1 represents a higher level of shareholder rights (Djankov, 2008). *CredRights* = an index that ranges from 0 to 4 from company law or bankruptcy laws from La Porta et al. (1997) where 1 is added when one of 4 dimensions of creditor rights is fulfilled in the company or bankruptcy laws of a country (La Porta, 1997, 1998). Regression (1) uses all observations and differentiates countries as code or common law only as defined by La Porta et al. (1997, 1998) except for the Netherlands which is classified as common law. All 3 institutional variables are used. Regression (2) classifies firms as code, common, or GIPS. Regression (3), (4), and (5) are used on specific samples based on the three country distinctions, code law, GIPS, and common law, respectively. The common law countries use antidirector rights and creditor rights because rule of law is a linear combination of antidirector rights and creditor rights for common law countries. Significance at < 0.01 is denoted as ***, significance at < 0.05 is denoted as **, and significance < 0.10 is denoted as *.

4.4 Regression Results for Unconditional Conservatism

Fixed effect regressions for unconditional conservatism are presented in Table 12, Table 13, and Table 14. Ball, Kothari and Nikolaev (2013) recommend including fixed effects to correct for bias when performing regressions for conditional conservatism. Therefore, it is reasonable to assume that a similar bias could exist for unconditional conservatism too. Industry fixed effects are used to eliminate possible sources of bias since industries would likely maintain similar reporting behavior due to herding²⁸. The effect of this unobserved relationship between industry and the dependent variables can be controlled by including indicator variables based on two digit SIC codes. This controls for within-industry variations that happen due to panel data that is non-experimental in nature (Allison, 2005). In addition, standard errors are clustered by the firm identifier, gvkey, and industry, represented by a firm's two digit SIC code to correct for biased standard errors. I cluster the standard errors on their two digit SIC code to eliminate the bias that is in the standard errors for industry related effects. OLS, White, Newey-West, Fama-MacBeth, and Fama-MacBeth corrected for first order correlation will all give biased standard errors in light of a firm effect, so therefore, the two-dimension clustering is needed (Petersen, 2009). The inter-IFRS years, 2002-2004, are excluded from all regressions. They represent a transition time period. During those years, firms publicly traded in the EU knew they would have to switch to IFRS in 2005. Therefore, behavior might have begun to adjust to the new, upcoming reporting standards. The Chow test showed there were structural breaks between the pre- and inter-IFRS years and between the inter- and post-IFRS years. If those observations remained in the pre-IFRS data then the results associated with the pre-period might reflect the evolving reporting instead of a true test of pre- and post- IFRS effects. All beta coefficient results are statistically significant at less than 0.01 unless stated otherwise. Table 12 presents the regression results for all observations with interaction time variables.

²⁸ Ball et al. (2013) use firm fixed effects. To control for any firm related issues, standard errors are clustered by firm and industry.

Table 12: Unconditional Conservatism Regressions with All Observations

	<i>Bkmkassets</i>	<i>Bkmkequity</i>	<i>ConAcc1</i>	<i>ConAccMoveAvg</i>
<i>Size</i>	-0.025***	-0.051***	-0.004***	-0.001***
<i>Sales</i>	-0.002	-0.136***	-0.016***	-0.010***
<i>Cfo_ta</i>	0.214***	0.408***	0.219***	0.052***
<i>Leverage</i>	0.013	0.278***	0.030***	0.029***
<i>RuleofLaw</i>	0.027***	0.083***	0.002	0.001
<i>Anti-SelfDeal</i>	-0.014	0.026	0.035***	0.034***
<i>CredRights</i>	0.007**	0.030***	0.002***	0.001**
<i>Techno</i>	0.092**	0.123**	0.012*	0.008
<i>UseEuro</i>	0.034***	0.175***	0.008***	0.006***
<i>CommonDum</i>	0.120***	0.282***	0.018***	0.028***
<i>GIPSDum</i>	0.022	-0.103	-0.013***	-0.020***
<i>Post-IFRS</i>	0.029	0.088***	0.019***	0.022***
<i>CommonDum*Post-IFRS</i>	-0.099***	-0.250***	-0.022***	-0.034***
<i>GIPSDum*Post-IFRS</i>	-0.015	0.125	0.015***	0.018***
n	35,008	35,003	39,046	32,840
R ²	0.870	0.599	0.155	0.140

Each of the four unconditional conservative measures are tested separately. Observations are included from the years 1996-2001 and 2005-2010. Regressions control for industry fixed effects and standard errors are clustered by industry and firm. *Bkmkassets* = book value of assets/(book value of total assets + the market value of equity (which is calculated as the number of shares outstanding multiplied the closing stock price from the last day of the fiscal year) – book value of equity). *Bkmkequity* = book value of equity / market value of equity (where mv = common shares outstanding * the closing stock price from the last fiscal day of the year). *ConAcc1* = (income before extraordinary items – cash flows from operations + depreciation expense) / average total assets from year t and year t-1. *ConAccMoveAvg* = (*ConAcc1* at time t + *ConAcc1* at time t-1 + *ConAcc1* at time t+1) / 3. All 4 measures of unconditional conservatism (*Bkmkequity*, *Bkmkassets*, *ConAcc1*, *ConAccMoveAvg*) are multiplied by -1 for interpretational reasons so positive numbers indicate higher levels of conservatism (Ahmed and Duellman, 2007). All regressions use size, sales, cfo_ta, and leverage as control variables. *Size* = natural log of average assets averaged for year t and t-1. *Sales Growth* = the percentage change in sales going from year t-1 to year t. *CFO_TA* = operating cash flows divided by average assets. *Leverage* = total long term liabilities divided by average assets. *RuleofLaw*, *Anti-SelfDeal*, and *CredRights* all measure institutional factors *RuleofLaw* = scale of 0 to 10 and is a monthly average from 1982 to 1995 of the tradition of law and order from the International Country Risk Guide (La Porta et al. 1997, 1998). *Anti-SelfDeal* = a measure of shareholders rights on a scale from 0 to 1 where a score of 1 represents a higher level of shareholder rights (Djankov, 2008). *CredRights* = an index that ranges from 0 to 4 from company law or bankruptcy laws from La Porta et al. (1997) where 1 is added when one of 4 dimensions of creditor rights is fulfilled in the company or bankruptcy laws of a country (La Porta, 1997, 1998). *Techno* is an indicator variable equal to 1 if the firm is in a technological field as defined by Field et al. (2005). *Euro* is an indicator variable equal to 1 if the financial statement is reported in Euros. *CommonDum* is an indicator variable equal to one if the firm is headquartered in the Netherlands, Ireland, or the United Kingdom. *GIPSDum* is an indicator variable equal to one if the firm is headquartered in Greece, Italy, Portugal, or Spain. *Post-IFRS* is an indicator variable equal to 1 if the fiscal year is between 2005 and 2010. Observations are Winsorized at the top and bottom 5%. Significance at < 0.01 is denoted as ***, significance at < 0.05 is denoted as **, and significance < 0.10 is denoted as *.

Each measure of unconditional conservatism in Table 12 is regressed on size, sales, cfo_ta, leverage, rule of law, anti-self dealing index, creditor rights, an indicator variable if the firm is in the technology industry, and an indicator variable if the financial statement is reported in euros, an indicator variable if the firm is headquartered in a common law country, and an indicator variable if a firm is headquartered in one of the GIPS countries, a post IFRS indicator variable, and an interaction variable of the country-classification (common law or GIPS) and the post-IFRS indicator variable.

Table 13 is similar to Table 12, but shows the differences between the time periods more in depth than just as an interaction variable. Three regressions are run for each measure of unconditional conservatism: one with all observations and a time period indicator, one for the pre-IFRS time period, and one for the post-IFRS time period.

Table 13: Unconditional Conservatism Regressions Bifurcated by Time Period

Panel A: Book to Market Measures of Unconditional Conservatism

	<i>Bkmkassets</i>			<i>Bktomktegtuiy</i>		
	All	Pre	Post	All	Pre	Post
<i>Size</i>	-0.027***	-0.033***	-0.018***	-0.058***	-0.083***	-0.020**
<i>Sales</i>	-0.002	-0.054***	0.067***	-0.139***	-0.306***	0.102***
<i>Cfo_ta</i>	0.243***	0.327***	0.160**	0.493***	0.604***	0.267**
<i>Leverage</i>	0.023	0.020	0.025	0.323***	0.293***	0.307***
<i>RuleofLaw</i>	0.030***	-0.043**	0.052***	0.085***	-0.107***	0.150***
<i>Anti-SelfDeal</i>	-0.004	-0.015***	0.013*	0.049	-0.404***	0.146**
<i>CredRights</i>	0.008***	0.014***	-0.002	0.034***	0.062***	-0.004
<i>Techno</i>	0.093**	0.109**	0.085***	0.127**	0.155*	0.118***
<i>UseEuro</i>	0.056***	0.065***	-0.020	0.247***	0.238***	0.037
<i>CommonDum</i>	0.069***	0.124***	0.007	0.157***	0.287***	-0.006
<i>GIPSDum</i>	0.019	-0.053	0.053***	-0.014	-0.301***	0.151***
<i>Post-IFRS</i>	-0.022			-0.028		
n	35,008	15,217	19,791	35,003	15,212	19,791
R ²	0.869	0.875	0.873	0.596	0.638	0.596

Panel B: Accruals Measures of Unconditional Conservatism

	<i>ConAccI</i>			<i>ConAccMoveAvg</i>		
	All	Pre	Post	All	Pre	Post
<i>Size</i>	-0.005***	-0.002***	-0.005***	-0.002***	-0.001	-0.001***
<i>Sales</i>	-0.016***	-0.011***	-0.020***	-0.010***	-0.007***	-0.011***
<i>Cfo_ta</i>	0.226***	0.255***	0.203***	0.062***	0.096***	0.029*
<i>Leverage</i>	0.033***	0.021***	0.036***	0.034***	0.026***	0.029***
<i>RuleofLaw</i>	0.002	0.005***	-0.001	0.002	0.003**	-0.000

<i>Anti-SelfDeal</i>	0.037***	0.059***	0.001	0.037***	0.061***	0.003
<i>CredRights</i>	0.003***	0.005***	-0.001	0.002***	0.004***	-0.001**
<i>Techno</i>	0.012*	0.015***	0.008	0.008	0.008***	0.006
<i>UseEuro</i>	0.015***	0.022***	-0.008**	0.015***	0.017***	-0.007**
<i>CommonDum</i>	0.007**	0.004	0.008**	0.010***	0.011**	0.007*
<i>GIPSDum</i>	-0.002	-0.010***	0.001	-0.007***	-0.017***	-0.002
<i>Post-IFRS</i>	0.009***			0.007***		
n	39,046	17,305	21,741	32,840	13,311	19,529
R ²	0.151	0.245	0.100	0.123	0.274	0.062

Each of the four unconditional conservative measures tests an overall regression, a regression with just the pre-IFRS observations (1996-2001), and a regression with post-IFRS observations (2005-2010). Regressions control for industry fixed effects and standard errors are clustered by industry and firm. *Bkmkassets* = book value of assets/(book value of total assets + the market value of equity (which is calculated as the number of shares outstanding multiplied the closing stock price from the last day of the fiscal year) – book value of equity). *Bkmkequity* = book value of equity / market value of equity (where mv = common shares outstanding * the closing stock price from the last fiscal day of the year). *ConAcc1* = (income before extraordinary items – cash flows from operations + depreciation expense) / average total assets from year t and year t-1. *ConAccMoveAvg* = (*ConAcc1* at time t + *ConAcc1* at time t-1 + *Conacc1* at time t+1) / 3. All 4 measures of unconditional conservatism (*Bkmkequity*, *Bkmkassets*, *ConAcc1*, *ConAccMoveAvg*) are multiplied by -1 for interpretational reasons so positive numbers indicate higher levels of conservatism (Ahmed and Duellman, 2007). All regressions use size, sales, cfo_ta, and leverage as control variables. *Size* = natural log of average assets averaged for year t and t-1. *Sales Growth* = the percentage change in sales going from year t-1 to year t. *CFO_TA* = operating cash flows divided by average assets. *Leverage* = total long term liabilities divided by average assets. *RuleofLaw*, *Anti-SelfDeal*, and *CredRights* all measure institutional factors *RuleofLaw* = scale of 0 to 10 and is a monthly average from 1982 to 1995 of the tradition of law and order from the International Country Risk Guide (La Porta et al. 1997, 1998). *Anti-SelfDeal* = a measure of shareholders rights on a scale from 0 to 1 where a score of 1 represents a higher level of shareholder rights (Djankov, 2008). *CredRights* = an index that ranges from 0 to 4 from company law or bankruptcy laws from La Porta et al. (1997) where 1 is added when one of 4 dimensions of creditor rights is fulfilled in the company or bankruptcy laws of a country (La Porta, 1997, 1998). *Techno* is an indicator variable equal to 1 if the firm is in a technological field as defined by Field et al. (2005). *Euro* is an indicator variable equal to 1 if the financial statement is reported in Euros. *CommonDum* is an indicator variable equal to one if the firm is headquartered in the Netherlands, Ireland, or the United Kingdom. *GIPSDum* is an indicator variable equal to one if the firm is headquartered in Greece, Italy, Portugal, or Spain. *Post-IFRS* is an indicator variable equal to 1 if the fiscal year is between 2005 and 2010. Observations are Winsorized at the top and bottom 5%. Significance at < 0.01 is denoted as ***, significance at < 0.05 is denoted as **, and significance < 0.10 is denoted as *.

Comparisons can be made between the different country classifications. The regressions in Table 14 look at unconditional conservatism based on country classification as either code law, common law, or GIPS. Three regressions are run for each country-type: one with all data from the pre-IFRS years (1996-2001) and post-IFRS years (2005-2010), one of just the pre-IFRS observations, and one only the post-IFRS observations. Rule of law is omitted as a control variable for all common law regressions because of it is a linear combination of size, anti-selfdeal, and creditor rights for common law regressions. Therefore, it is excluded from common law regressions to prevent errors-in-variables.

Table 14: Unconditional Conservatism Regressions Based on Legal System and Time Period

Panel A: Bkmassets

	Code Law			GIPS			Common Law		
	All (1)	Pre (2)	Post (3)	All (1)	Pre (2)	Post (3)	All (1)	Pre (2)	Post (3)
<i>Size</i>	-0.023***	-0.023***	-0.022***	-0.067***	-0.094***	-0.015	-0.014***	-0.009	-0.017***
<i>Sales</i>	-0.019	-0.062***	0.060***	-0.095***	-0.143***	0.066***	0.072***	0.072***	0.067***
<i>Cfo_ta</i>	0.203***	0.233***	0.220**	0.538***	0.110	0.525***	0.170**	0.389***	0.038
<i>Leverage</i>	-0.126***	-0.135**	-0.084*	0.185***	0.079	0.091	0.117***	0.045	0.139***
<i>RuleofLaw</i>	0.085***	0.046	0.048**	2.206***	-0.420	2.872***			
<i>Anti-SelfDeal</i>	-0.096	0.049	-0.097	-25.080***	3.527	-32.298***	-0.065	-0.000	-0.115**
<i>CredRights</i>	-0.002	0.012	-0.007	0.324***	-0.044	0.400***	0.002	-0.025	0.020
<i>Techno</i>	0.072**	0.101***	0.058	0.100	0.048	0.114	0.110***	0.120	0.113***
<i>UseEuro</i>	0.039**	0.056***	-0.029	0.194***	0.168***	0.278***	-0.013	-0.022	-0.007
<i>Post-IFRS</i>	0.024			-0.190***			-0.074***		
n	16,193	6,786	9,407	4,513	1,610	2,903	14,302	6,821	7,481
R ²	0.882	0.890	0.882	0.910	0.938	0.925	0.852	0.865	0.848

Panel B: Bkmkequity

	Code Law			GIPS			Common Law		
	All (1)	Pre (2)	Post (3)	All (1)	Pre (2)	Post (3)	All (1)	Pre (2)	Post (3)
<i>Size</i>	-0.043***	-0.059***	-0.030***	-0.213***	-0.328***	-0.029	-0.012	-0.006	-0.013
<i>Sales</i>	-0.201***	-0.337***	0.058***	-0.397***	-0.509***	0.165***	0.102***	0.081***	0.115***
<i>Cfo_ta</i>	0.290***	0.316**	0.307**	1.253***	0.278	0.957***	0.339***	0.686***	0.100
<i>Leverage</i>	0.033	0.022	0.125	0.792***	0.087	0.580***	0.458***	0.396***	0.448***
<i>RuleofLaw</i>	0.146**	0.019	0.078	5.776***	-0.845***	6.307***			
<i>Anti-SelfDeal</i>	-0.158	0.287	-0.214	-64.784***	7.643	-70.178***	-0.190**	-0.016	-0.345**
<i>CredRights</i>	0.014	0.075***	-0.017	0.842***	-0.037	0.889***	0.023	-0.037	0.068
<i>Techno</i>	0.068	0.150***	0.040	0.162	-0.026	0.249*	0.172***	0.168	0.192***
<i>UseEuro</i>	0.143***	0.164***	-0.019	0.766***	0.719***	0.677**	-0.006	-0.002	-0.016
<i>IFRS</i>	0.101***			-0.513***			-0.155***		
n	16,191	6,784	9,407	4,513	1,610	2,903	14,299	6,818	7,481
R ²	0.612	0.636	0.619	0.703	0.859	0.676	0.586	0.633	0.571

Panel C: ConAcc1

	Code Law			GIPS			Common Law		
	All (1)	Pre (2)	Post (3)	All (1)	Pre (2)	Post (3)	All (1)	Pre (2)	Post (3)
<i>Size</i>	-0.003***	-0.002	-0.004***	0.002*	0.004***	-0.003*	-0.006***	-0.004***	-0.007***
<i>Sales</i>	-0.018***	-0.013***	-0.024***	-0.024***	-0.021***	-0.034***	-0.012***	-0.007**	-0.014***
<i>Cfo_ta</i>	0.252***	0.305***	0.245***	0.459***	0.573***	0.417***	0.176***	0.206***	0.151***

<i>Leverage</i>	0.021***	0.009	0.033***	0.011	-0.002	0.029**	0.052***	0.050***	0.052***
<i>RuleofLaw</i>	0.012***	0.014***	-0.005	-0.643***	-0.918***	-0.302**			
<i>Anti-SelfDeal</i>	-0.066***	-0.085***	-0.024	7.348***	10.542***	3.441**	0.047***	0.061***	0.015
<i>CredRights</i>	0.002	-0.000	-0.002	-0.075***	-0.103***	-0.032**	0.001	0.004	-0.004
<i>Techno</i>	0.012	0.013*	0.009	0.005	-0.006	0.006	0.009*	0.011**	0.006
<i>UseEuro</i>	0.005**	0.018***	-0.017***	0.036***	0.036***	0.040***	0.018***	0.017***	0.001
<i>IFRS</i>	0.020***			0.011***			-0.006***		
n	18,503	7,963	10,540	4,946	1,848	3,098	15,597	7,494	8,103
R ²	0.168	0.261	0.123	0.450	0.669	0.295	0.121	0.187	0.088

Panel D: ConAccMoveAvg

	Code Law			GIPS			Common Law		
	All (1)	Pre (2)	Post (3)	All (1)	Pre (2)	Post (3)	All (1)	Pre (2)	Post (3)
<i>Size</i>	-0.000	-0.001	0.000	0.002***	0.001	0.002*	-0.002***	-0.001	-0.003***
<i>Sales</i>	-0.010***	-0.008***	-0.011***	-0.013***	-0.007**	-0.024***	-0.009***	-0.008***	-0.008***
<i>Cfo_ta</i>	0.038***	0.098***	0.043**	0.170***	0.292***	0.112***	0.041**	0.074**	0.011
<i>Leverage</i>	0.022***	0.019**	0.026***	0.026**	0.016	0.028**	0.041***	0.041***	0.040***
<i>RuleofLaw</i>	0.010***	0.011***	-0.005	-0.630***	-0.960***	-0.316***			
<i>Anti-SelfDeal</i>	-0.042***	-0.062***	-0.004	7.214***	11.042***	3.615***	0.046***	0.060***	0.014
<i>CredRights</i>	-0.002**	-0.000	-0.001	-0.076***	-0.109***	-0.038***	0.001	0.005*	-0.005*
<i>Techno</i>	0.011*	0.013***	0.008	-0.002	-0.011	0.001	0.003	-0.000	0.003
<i>UseEuro</i>	0.005**	0.016***	-0.013***	0.018***	0.022***	0.008	0.016***	0.014**	-0.002
<i>IFRS</i>	0.022***			0.030***			-0.013***		
n	15,698	6,035	9,663	4,240	1,410	2,830	12,902	5,866	7,036
R ²	0.115	0.242	0.053	0.393	0.711	0.149	0.147	0.256	0.107

Each of the four unconditional conservative measures are tested separately by legal system. *Bkmkassets* = (book value of total assets + the market value of equity (which is calculated as the number of shares outstanding multiplied the closing stock price from the last day of the fiscal year) – book value of equity) / market value of assets. *Bkmkequity* = book value of equity / market value of equity (where mv = common shares outstanding * the closing stock price from the last fiscal day of the year). *ConAccI* = (income before extraordinary items – cash flows from operations + depreciation expense) / average total assets from year t and year t-1. *ConAccMoveAvg* = (*ConAccI* at time t + *ConAccI* at time t-1 + *ConAccI* at time t+1) / 3. All 4 measures of unconditional conservatism (*Bkmkequity*, *Bkmkassets*, *ConAccI*, *ConAccMoveAvg*) are multiplied by -1 for interpretational reasons so positive numbers indicate higher levels of conservatism (Ahmed and Duellman, 2007). There are 6 regressions run for each of the dependent variables. All regressions use size, sales, cfo_ta, and leverage as control variables. *Size* = natural log of average assets averaged for year t and t-1. *Sales Growth* = the percentage change in sales going from year t-1 to year t. *CFO_TA* = operating cash flows divided by average assets. *Leverage* = total long term liabilities divided by average assets. *RuleofLaw*, *Anti-SelfDeal*, and *CredRights* all measure institutional factors of a country and come from La Porta et al. (1997, 1998). In addition, *RuleofLaw* = scale of 0 to 10 and is a monthly average from 1982 to 1995 of the tradition of law and order from the International Country Risk Guide. *Anti-SelfDeal* = a measure of shareholders rights on a scale from 0 to 1 where a score of 1 represents a higher level of shareholder rights (Djankov, 2008). *CredRights* = an index that ranges from 0 to 4 from company law or bankruptcy laws from La Porta et al. (1997) where 1 is added when one of 4 dimensions of creditor rights is fulfilled in the company or bankruptcy laws of a country. *UseEuro* = an indicator variable equal to one if a firm's financial statements are reported in Euros. This is to control for any confounding events that are linked to a common currency. Code or common law countries are defined by La Porta et al. (1997, 1998) except for the Netherlands which is classified as common law. Countries known as the GIPS (Portugal, Italy, Greece, and Spain, are tested separately in their own group and are not included in the code law countries. The common law countries use only rule of law and creditor rights because there is not enough variation between the three countries to use all 3 institutional variables. Significance of less than 0.10 is denoted by *, significance of less than 0.05 is denoted as **, and significance of less than 0.01 is denoted by ***. All variables are converted to British Pounds and are Winsorized at the top and bottom 5%. All standard errors are clustered by firm and industry.

4.5 Book to Market Measures of Unconditional Conservatism

Table 12 shows that common law countries exhibit more unconditional conservatism across both book to market measures of unconditional conservatism compared to code law countries. However, GIPS do not show a statistical difference compared to code law countries. There is an increase in unconditional conservatism in the book to market of equity measure after the implementation of IFRS while the book to market of assets does not show significance for the post-IFRS indicator variable. Common law countries show a decrease in unconditional conservatism across both book to market measures post-IFRS.

Given the significance of the time indicator variable, the common law indicator, and the interaction indicator for common law countries, I next look at the differences between beta coefficients across all observations in Table 13, Panel A between the pre- and post-IFRS time periods. Consistent with the Chow tests, the beta coefficients can be seen to be different between the time periods, indicating behavioral differences between the pre-and post-IFRS time periods. For example, in the pre-IFRS years, an increase in *sales* decreases conservatism for both book to market measures. After the implementation of IFRS, an increase in sales is associated with an increase in conservatism. This changed effect on beta coefficients for book to market measures can also be seen in institutional variables. Overall, a higher rule of law in a country increases the amount of unconditional conservatism in that country for both book to market measures. However, when looking at the pre-IFRS time period, a higher rule of law is associated with lower levels of unconditional conservatism. After the implementation of IFRS, a higher level of rule of law is associated with higher levels of unconditional conservatism for book to market measures. *Anti-self dealing* exhibits the same statistically significant change in behavior between the pre-and post-IFRS years. An increase in creditor rights increases conservatism prior to IFRS but has no effect on either book to market measure after the implementation of IFRS. The effect on country-classification also becomes apparent. Common law countries show a

greater level of conservatism according to both book to market measures prior to IFRS. However, there is no statistical difference post-IFRS. GIPS have no statistical difference from code law countries prior to IFRS but show greater conservatism after IFRS.

Given these changes when looking at all the observations, I then explore if the changes differ based on country classification of either code law, common law, or GIPS in Table 14, Panel A and Panel B. Regression in the first column (labeled (1)) include all observations from the two time periods, 1996-2001 and 2005-2010. From this it becomes apparent that overall, there are differences in how the independent variables affect the book to market measures of unconditional conservatism. For example, *sales* has an overall negative effect for GIPS countries and a positive effect for common law countries on both book to market measures. Code law countries have an overall insignificant relationship to the book to market of assets measure, but a negative and significant relationship to the book to market of equity. Therefore, the effect a control variable has on conservatism is dependent on the country classification. Institutional variables also have different effects on conservatism based on the country classification when looking at the regressions in column (1). *Creditor Rights* has no significance for code or common law countries for either book to market measure. However, GIPS regressions over all observations show that if creditor rights increase, unconditional conservatism increases. The *post-IFRS* dummy shows differing results based on country-type. Both GIPS and common law countries show a decrease in unconditional conservatism for both book to market measures. Code law countries show no change in the level of conservatism post-IFRS for the book to market of assets measure while the book to market of equity shows an increase in conservatism for code law countries.

Regression columns (2) and (3) are useful for examining how the independent variables affect unconditional conservatism differently dependent on the time period and country-type. An increase in *size* decreases conservatism for code law countries before and after IFRS for both book to market measures. Both measures also show an increase in size decreasing conservatism prior to IFRS but no

change in conservatism post-IFRS for GIPS observations. The effect on common law observations depends on the book to market measure. The book to market of assets shows no relationship between size and conservatism prior to IFRS while it shows that an increase in size leads to a decrease in conservatism after IFRS. The book to market of equity shows no relationship between size and conservatism for common law countries in either time period. Both book to market measures show the same effect for *sales*. Code law observations and GIPS both show a significant negative relationship prior to IFRS. This relationship becomes positive and significant after IFRS. An increase in sales increases conservatism for common law observations before and after IFRS. *Cfo_ta* results hold for both book to market measures. An increase in *cfo_ta* increases conservatism before and after IFRS for code law countries. GIPS show no statistical relationship to conservatism prior to IFRS but a positive and significant relationship after IFRS. Common law is the opposite of GIPS; it has no significant relationship prior to IFRS, but a positive and significant influence on conservatism after IFRS. The significance for the beta coefficients on *leverage* vary based on the book to market measure. Code law countries have a negative effect before and after IFRS, GIPS have no statistical relationship, and common law countries show no relationship prior to IFRS but a positive and significant relationship post-IFRS in regards to the book to market of assets. For the book to market of equity, leverage does not affect conservatism either before or after IFRS for code law countries and for the pre-IFRS GIPS regression, but has a positive effect on conservatism post-IFRS for GIPS, and pre- and post-IFRS for common law regressions. *Rule of law* also affects conservatism differently based on the book to market measure. Code law observations have no significant relationship to conservatism prior to IFRS and a positive relationship after IFRS if book to market of assets is the measure of conservatism. When the book to market of equity is the measure, there is no effect on conservatism for code law observations. There is no effect on the book to market of assets conservatism prior to IFRS for GIPS, and this relationship becomes positive post-IFRS. The rule of law has a negative effect on the book to market of

equity prior to IFRS for GIPS, and this relationship becomes positive post-IFRS. *Anti-selfdeal* affects all country types the same for both book to market measures. There is no effect of anti-self deal on conservatism before or after IFRS. There is also no effect for GIPS prior to IFRS, but after IFRS, an increase in anti-selfdeal decreases conservatism. Common law countries also have no effect prior to IFRS but decrease conservatism after IFRS. *Creditor Rights* does not affect either book to market measure of conservatism prior to IFRS for GIPS, but increases conservatism post-IFRS. There is no effect before or after IFRS for common law observations. The effect on code law observations depends on the measure of conservatism. The book to market of assets is not affected by creditor rights before or after IFRS for code law observations. However, when the book to market of equity is the measure of conservatism, an increase in creditor rights increases conservatism prior to IFRS while there is no relationship post-IFRS. The effect of *technology* is very similar across the two measures of conservatism. Technology increases conservatism prior to IFRS but has no effect post-IFRS for code law countries. Common law countries experience the opposite: no effect prior to IFRS but a positive relationship to both book to market conservatism measures post-IFRS. The effect for GIPS countries does change slightly depending on the book to market measure. There is no effect for either measure prior to IFRS. However, post IFRS the relationship continues to be insignificant for the book to market of assets, but the relationship is marginally significant for the book to market of equity (at less than 0.10). The effect for the indicator variable, *Euro*, is the same for both book to market measures. Reporting their financial statement in Euros increases conservatism prior to IFRS for code law observations but has no effect after IFRS. The use of the Euro increases conservatism for GIPS before and after the implementation of IFRS. There is no effect of using the Euro on conservatism for common law observations.

Overall, the introduction of IFRS has induced a change in firm behavior in regards to book to market measures of conservatism, and the effect of this change is mediated by the country classification

of the firm. Conservatism has decreased conservatism for common law countries and GIPS countries after IFRS. In addition, the book to market of equity measure of conservatism shows an increase in conservatism after IFRS. Original testing reveals that common law countries in the sample have higher levels of conservatism to begin with so these movements show code and common law countries moving towards each other. However, GIPS countries show less conservatism post-IFRS for these measures.

4.6 Accruals Measures of Unconditional Conservatism

The results for the accruals measures of for unconditional conservatism also show differences between the pre- and post-IFRS time periods in addition to showing differences between the country-classification. The indicator variable *post-IFRS* in Table 12 shows that conservatism increases post-IFRS, which is consistent with the result for the book to market of equity. Similarly, the positive and significant beta coefficient for the indicator variable, *Commondum*, confirms that if a firm is a common law country, there is greater unconditional conservatism. One key difference with the book to market measures is that the accruals measure shows a significant negative relationship between *GIPSdum* and unconditional conservatism (while the relationship is insignificant with the book to market measures). Therefore, using the accruals measures of unconditional conservatism reveals the common law countries have the highest level of unconditional conservatism followed by code law countries and GIPS have the least amount of unconditional conservatism. After the implementation of IFRS, common law countries decrease in their level of conservatism while GIPS increase in their level of conservatism.

Table 13 shows some overall differences between time periods for both accruals measures. The effect of the independent variable on the dependent variable differs based on which accruals measure is used in the regression. *Size* decreases the one period measure of accruals before and after IFRS and the moving average measure of accruals post-IFRS. However, size has no effect on pre-IFRS moving average measure of accruals. An increase in *sales* decreases both accruals measures of conservatism

before and after IFRS. *Cfo-ta* increases conservatism for both accruals measures in both time periods but the significance in the post-IFRS time period for the moving average measure of accruals is weak. *Leverage* has a positive effect on both accruals measures before and after IFRS. The *rule of law*, *anti-self deal*, and *techno* increase the amount of conservatism prior to IFRS but do not affect the amount of conservatism after IFRS. *Creditor rights* is similar to rule of law and anti-selfdeal. It increases conservatism prior to IFRS; however, the moving average measure of accruals decreases with an increase in creditor rights post-IFRS. The use of the *Euro* increases conservatism before IFRS, but decreases conservatism after IFRS for both accruals measures. The one period measure of accruals shows no effect on conservatism for *CommonDum* prior to IFRS but increases conservatism after IFRS while the moving average of accruals shows common law firms have greater conservatism before and after IFRS, but the significance is marginal (less than 0.10) post-IFRS. If a firm is headquartered in a *GIPSDum* country, they exhibit lower conservatism than a code law country prior to IFRS and have no significant difference from code law countries post-IFRS. *Post-IFRS* reveals an increase in conservatism for all observations for both accruals measures.

Since there are clear differences between time periods for the accruals measures of unconditional conservatism, I again look at regressions on a country-type basis in Table 14, Panels C and D. Similar to the book to market measures, the accruals measures of conservatism also shows regression differences by country type when all pre- and post- data is used for their respective regressions in the regression columns (1) for each respective country-type. *Size* increases unconditional conservatism for GIPS countries, decreases conservatism for common law countries (the significance on GIPS for the one period accruals dependent variable is at less than 0.10). The effect of size on conservatism for code law firms depends on which accruals measure is used. Size decreases conservatism for the one period measure of accruals but has no effect on conservatism for the moving average accruals measure. An increase in *sales* decreases conservatism while an increase in *cfo-ta* increases conservatism for all three

country-types for both accruals measures. *Leverage* increases conservatism for common law and code law countries. However, the influence of leverage on GIPS is dependent on which accruals conservatism measure is used. The one period measure of conservatism is not affected by leverage while the moving average measure increases if leverage increases. The effect on *ruleoflaw* depends on country-classification. An increase in rule of law increases conservatism for code law countries but decreases conservatism for GIPS countries. An increase in *Anti-selfdeal* lowers conservatism for code law countries, but increase conservatism for GIPS and common law countries. *CredRights* does not affect conservatism for firms in common law countries. An increase in creditor rights decreases conservatism for firms in GIPS countries. The effect of creditor rights on conservatism for code law countries depends on which accruals measure is used. Creditor rights has no effect for the one period measure of accruals. If the moving average measure of accruals is used, an increase in creditor rights decreases conservatism. If a firm is in the technology sector, it does not affect conservatism for GIPS countries. This sector effect for common and code law countries depends on the accruals measure. There is no effect on conservatism for code law countries with the one period measure of accruals but there is a weak increase in the level of conservatism using the moving average accruals measure (significance at less than 0.10). The results are the opposite for common law countries. In common law countries, if a firm is in the technology sector, there is a weak increase in conservatism (significance at less than 0.10) using the one period measure of accruals. There is no effect on conservatism for common law countries using the moving average measure of accruals. Using the *Euro* for their financial statements increases both accruals measures of conservatism for all country-types. Overall, conservatism increases post-IFRS for firms in code law and GIPS countries while conservatism decreases for common law countries.

Columns (2) and (3) in Table 14 are used to see how the beta coefficients change before and after IFRS across different country-types for both measures of accruals conservatism (Panels C and D). *Size* affects conservatism differently depending on which measure of accruals is used. When the one-period

accruals measure is used, conservatism is not affected by size prior to IFRS, but there is an inverse relationship after IFRS. GIPS have a positive relationship prior to IFRS, but a weakly significant (at less than 0.10) relationship after IFRS, and common law countries negatively affect conservatism in both time periods. When the moving average accruals measure is used, no country type affects conservatism prior to IFRS. Post-IFRS, size does not affect the amount of conservatism for code law countries, has a weakly positive relationship (at less than 0.10) for GIPS, and has a negative effect on conservatism for common law countries. An increase in *sales* decreases conservatism for all country classifications before and after IFRS. The beta coefficients are positive for *cfo_ta* in both time periods for all country classifications; the only exception to this is that *cfo_ta* loses its significance for the moving average measure of accruals post-IFRS for common law firms. When the one period accruals measure is the dependent variable, *leverage* does not affect the amount of conservatism for code law or GIPS before IFRS. Common law countries have an increase in accruals if leverage increases. After IFRS, all three country types have conservatism increases as leverage increases. When the moving average measure of conservatism is used, all three country types have an increase in both conservatism measures if leverage increases except for the pre-IFRS time period for GIPS in which there is no statistical relationship. The effect of *rule of law* on conservatism changes for code law observations depending on the time period and is consistent across both accruals measures. A higher *rule of law* increases conservatism for code law countries prior to IFRS but decrease conservatism after IFRS. Rule of law decreases conservatism for GIPS before and after IFRS. *Anti-selfdeal* changes by time periods, but both accruals measures are consistent. Anti-selfdeal decreases conservatism prior to IFRS but does not affect conservatism after IFRS for code law countries. For common law countries, the anti-selfdeal measure increases conservatism pre-IFRS and like code law countries, there is no statistically significant effect on conservatism after IFRS. There is an inverse relationship before and after IFRS for GIPS. The level of *creditor rights* has no effect on conservatism for code law countries for either time period and the level

of creditor rights decreases conservatism for GIPS countries before and after IFRS for both measures of conservatism. However, the result for common law countries depends on which accruals measure is used. Creditor rights has no effect on conservatism for the one period measure of accruals. When the moving average accruals is the dependent variable, creditor rights increases conservatism prior to IFRS but decreases conservatism after IFRS. But, both of those results are only marginally significant at less than 0.10. If a code law firm is in the *technology* industry, there is an increase in conservatism prior to IFRS, but after the implementation of IFRS there is no change in the level of conservatism. The significance does differ between the two conservatism measures. The one period measure of accruals is only significant at less than 0.10 while the moving average accruals measure is significant at less than 0.01. The technology industry does not affect the amount of conservatism for firms in GIPS countries in either time period. A firm in the technology industry will have greater conservatism for the one period accruals measure but has no effect for the moving average accruals measure before IFRS. For both measures, the post-IFRS level of conservatism does not change for firms in the technology industry. Using the *Euro* increases conservatism for code law countries prior to IFRS but decreases conservatism after IFRS. Conservatism increases in GIPS countries when they report their financial statements using the Euro prior to IFRS. The effect in the post-IFRS years depends on the accruals measure. The use of the Euro increases conservatism post-IFRS for GIPS with the one period measure of accruals but has no effect when the moving average accruals measure is the dependent variable. The use of the Euro increases conservatism for common law countries but has no impact post IFRS.

The accruals measures of conservatism produce similar results. Common law countries have the most conservatism followed by code law countries, then GIPS. After the implementation of IFRS, common law countries decrease their conservatism while GIPS increase their level of conservatism.

4.7 Discussion of Results for Unconditional Conservatism

The first hypothesis predicted that code law countries would have the highest form of unconditional conservatism, followed by GIPS, and then common law countries prior to IFRS. Results partially support this hypothesis. Univariate results in Table 7, Panel B and Table 8, Panel B show that prior to the implementation of IFRS, common law observations have the highest level of unconditional conservatism based on the mean and the median and code law observations have higher conditional conservatism than GIPS. In Table 13, three of the four pre-regressions (all except the one period accruals measure) show that the common legal system indicator variable, *CommonDum*, is significant and positive indicating common law firms have higher levels of unconditional conservatism. This is not consistent with H1 which predicted code law observations would have higher levels of unconditional conservatism. Code law observations do have more unconditional conservatism than GIPS observations, which does support H1. *GIPSDum*, the indicator variable for the effect of conservatism on GIPS observations relative to code law observations, is negative and significant for three out of the four unconditional conservatism measures (the result is insignificant for the book to market of assets measure of conservatism).

These results that common law firms are more unconditionally conservative are surprising given prior literature. One possibility for the unexpected higher level of common law unconditional conservatism could be due to the nature of the firms in the sample that came from Compustat Global. The common law countries are smaller than the code law and GIPS countries on average. LaFond and Watts (2008) discuss the relationship between information asymmetry and find that larger firms have less information asymmetry, and hence, lower levels of unconditional conservatism. Common law firms, with their smaller size, may therefore, have higher conservatism due to higher levels of information asymmetry. The measure of profitability, *cfo_ta*, has a greater mean for common law firms than code law or GIPS. Ahmed et al. (2002) show that profitable firms tend to be more conservative. Therefore,

the higher level of profitability could also be driving the higher level of unconditional conservatism for common law firms. The result of greater unconditional conservatism for common law countries is, however, consistent with the results of Salter et al. (2013). They find that there is greater unconditional conservatism if a firm exhibits low masculinity, high uncertainty avoidance, is of English origin, and has strong creditor rights. Common law countries are of English origin. In addition, GIPS countries are more masculine on average than the code law countries in the sample which can be seen in Table 2 and is consistent with these results that firms in less masculine countries exhibit greater unconditional conservatism when comparing code to GIPS observations.

H2 hypothesizes in the post-IFRS time period that the differences no longer exist from the pre-IFRS time period. Table 7 shows that there are still significant differences for three of the four unconditional conservatism measures between code and common observations (except for the book to market of assets). For code law observations, the amount of unconditional conservatism increased between the pre- and post-IFRS time periods. For common law observations, the amount of unconditional conservatism decreased. For GIPS observations, the amount of unconditional conservatism increased. The magnitude of the differences has decreased between code and common observations and between code and GIPS observations between the pre- and post-IFRS time period. The *Bkmkequity* measure of unconditional conservatism is used for illustrative purposes. Code law observations have a mean value of -0.997 before IFRS and -0.738 after IFRS which represents an increase in unconditional conservatism. GIPS have a mean value of -1.393 before IFRS and -0.950 after IFRS, also an increase in unconditional conservatism. Common law observations have a mean of -0.665 before IFRS and -0.796 after IFRS. Prior to IFRS, common law observations are 0.332 $(-0.665 - (-0.997))$ more units conservative compared to code law observations. After IFRS, common law observations are 0.058 units more conservative compared to code law observations $(-0.796 - (-0.738))$. Even though there is still a significant difference, the amount of the difference is less post-IFRS than

before IFRS. The same can be done for the difference between code law observations and GIPS. Before IFRS, code law observations are 0.396 units more conservative than GIPS ($-0.997 - (-1.393)$) and after IFRS, code law observations are 0.212 units more conservative than GIPS ($-0.738 - (-0.950)$). The results are similar to the difference between code and common law observations. There is still a significant difference between code law observations and GIPS but the difference is smaller after IFRS. Table 12 shows via the interaction variable *CommonDum*Post-IFRS* that after IFRS, common law observations decrease their level of conservatism. *GIPSDum*Post-IFRS* shows that after IFRS, the difference becomes insignificant. The indicator variable, *Post-IFRS*, in Table 14 shows how conservatism changed after IFRS. Code law countries show an increase in unconditional conservatism in three out of the four regressions (except book to market of assets which shows no change post-IFRS). Common law countries show a decrease in unconditional conservatism across all four unconditional conservatism variables. GIPS decrease in their level of book to market conservatism while their level of accruals conservatism increases after IFRS. Overall, H2 is partially supported because the difference between GIPS and code law countries no longer exists for the book to market measures after IFRS. Differences exist for everything else. IFRS is not enough to eliminate the differences. However, the difference between the legal systems is less than it was before IFRS. Common law countries and code law countries have moved towards each other with common law countries increasing while code laws countries decreasing in their conservatism.

The prior sections highlight that many of the relationships between the independent variables and measures of unconditional conservatism change over time. A variable that might decrease conservatism in one time period may increase it in another (or vice versa), or might go from insignificant to significant (or vice versa). I discuss the results in Table 14 to go beyond the numbers and discuss why these changes may have occurred. The change in the direction of a coefficient differs by country type. The question of why this would happen arises. Some reasons can be postulated, although testing them is

outside the scope of this paper. For other variables, there is no firm a priori reason for why the changes could occur²⁹. These reasons may be able to help describe other observed accounting behaviors. Both book to market measures for GIPS show *size* decreasing conservatism before IFRS, but having no effect after IFRS. One possible explanation could be due to larger firms having lower information asymmetry coupled with the problems associated with GIPS in the global recession. Table 7 shows that GIPS firms have the largest mean out of the three country-types for *size*. If large firms have low levels of asymmetric information, we would expect to see a negative coefficient on *size*. This lower level of asymmetric information has to do with the nature of stakeholders in continental Europe. Continental Europe shareholders tend to be more varied than common law countries because in addition to stockholders, there are additional blockholders like families and banks who retain greater control, a greater voice by labor, and less dispersion of ownership (Aguilera and Jackson, 2003). Therefore, it would be expected that continental European firms have less information asymmetry and the larger the firm, the less likely they would be to be conservative. That helps to explain the negative sign for code law and GIPS prior to the implementation of IFRS. After IFRS, code law observations continue to have that negative relationship. However, the coefficient on GIPS becomes insignificant. One possibility could be the increased financial problems in the GIPS area post-global financial crisis. There was a high risk of default in the GIPS area, banks were not lending money like they had been, and firms faced liquidity issues. As a result of the uncertainty of this time, information asymmetry may have increased for firms in GIPS countries, more than for other countries that were not as affected by debt and slow growth prospects. This caused an increase in information asymmetry so large firms no longer saw a

²⁹ *Techno*, the indicator variable if a firm is in the technology industry (to proxy for litigation risk), is an example of a variable for which it is more difficult to explain the change in signs. Being a part of the technology industry increases conservatism before IFRS for code law countries, but does not affect it after IFRS. It is the opposite for common law countries; firms in the technology industry do not affect conservatism prior to IFRS, but they do afterwards. There is an unanswered question that remains on why the significance switches for the two types of countries.

decrease in conservatism. Code law firms and common law firms were on stronger financial footing during this time; hence, their information asymmetry may not have increased.

However, this explanation for *size* does not do a good job of explaining why the coefficients change for the accruals measures of conservatism. Some of the observed changes of the control variables here may be due to the nature of the accruals measure and the role of income smoothing in Continental Europe. Continental Europe engages in more income smoothing than Anglo-American countries (Leuz et al. 2003). Therefore, any measure that takes into account accruals like the accrual measures of conservatism are embedded with income smoothing behavior. Therefore, it may be of interest to disentangle the effect of income smoothing and unconditional conservatism from the accruals proxies of conservatism.

The effect of *Sales* growth on conservatism went from negative prior to IFRS to positive after IFRS for both GIPS and code law countries while it remained positive and significant in both time periods for common law observations for all four measures of conservatism (even though as mentioned previously, reasons for sign changes may not be consistent between book to market and accruals measures). One possibility for the flip in signs for code and GIPS observations could be observable changes in the recording of revenue recognition, which affects the calculation of sales growth, which would lead to a change in the way that sales growth affects conservatism. IFRS is more common law based so it makes sense that firms in common law countries would have a more consistent way of measuring sales before and after IFRS which would lead to the expected sign in both time periods for common law observations.

Leverage is insignificant in the pre-time and significant in the post-IFRS time for three out of the four measures of conservatism (it is insignificant in both time periods for the book to market of assets measure of conservatism) for GIPS regressions. According to the tests of the means in Table 7, leverage was the same in the pre- and post- time periods for code and common law firms while GIPS saw a large

increase in their leverage. This increase in leverage was most likely driven by the GIPS problems discussed previously in the literature review. Therefore, for them it makes sense that this increase in leverage between the pre- and post- IFRS time periods affected the empirical results of leverage having no statistical effect on conservatism to a positive relationship with conservatism. Code law and common law countries saw no change in their amount of leverage in Table 7 and the effect of leverage on conservatism remained the same pre- and post-IFRS (there is a positive and significant relationship between leverage and conservatism before and after IFRS for all measures of unconditional conservatism except for the book to market of assets). Code law countries have the same amount of conservatism before and after IFRS (Table 7) but the regression results in Table 14 show varying effects before and after IFRS depending on the measure of unconditional conservatism. Therefore, the explanation of needing to take on more debt does not explain their change in the effect of leverage on conservatism. However, something that is outside the scope of this paper that might have affected the effect of leverage could be the terms of the loans themselves. Code law countries have loans that are characterized by a closer relationship between lenders and firms whereas these loans tend to be more arms-length in common law countries. The global financial crisis affected lending across the EU. It is possible that the common law countries already had stricter covenants prior to IFRS that encouraged conservative accounting since there was less familiarity between the lenders and the firms. After the global financial crisis, lenders to firms in code law countries could have demanded more timely accounting and stricter covenants that called for more conservative accounting. This may also affect the results for GIPS in addition to the large increase in debt for GIPS observations.

Institutional variables also change between time periods for the regressions. It is interesting to note that prior to IFRS, no country-type has institutional variables that affect either book to market measure of conservatism. The only exception to that is *RuleofLaw* for GIPS in that the book to market of equity measure is significant. *Rule of Law* is a measure of law enforcement (La Porta et al., 1997). Every

other coefficient for *RuleofLaw*, *Anti-selfDeal*, and *CredRights* is insignificant prior to IFRS for both book to market of assets and book to market of equity measures of conservatism for code, GIPS, and common law observations. Code law firms continued to have insignificant coefficients except for *RuleofLaw* for the book to market of assets measure. Therefore, institutions do not play a role in book to market measures of conservatism before or after IFRS for code law firms. The institutional variable, *Anti-SelfDeal*, becomes significant after IFRS for common law firms. The higher anti-self deal is, the stronger the shareholder protection (Djankov et al., 2008). Both book to market measures reveal increases in *Anti-SelfDeal* after the implementation of IFRS. An increase in *Anti-SelfDeal* after IFRS lowers conservatism for common law countries and GIPS but not for code law countries. As mentioned previously, institutional variables do not affect book to market measures of conservatism for code law countries. The negative effect for common law and GIPS indicates that after IFRS is implemented, an increase in *Anti-SelfDeal* lowers conservatism. As investor protection goes up, the need for conservative accounting goes down. This may have to do with the enforcement activities to protect shareholders.

After IFRS is implemented, all three institutional variables become significant for GIPS for both book to equity measures. All institutional variables have significant effects on the book to market measures after the implementation of IFRS. One possibility could be due to what is driving the change in GIPS. Adopting IFRS has caused institutional variables to affect book to market measures of conservatism when they did not prior to IFRS. The question arises of why do these institutions now matter for GIPS? It could be that once there was a unified standard, the weakness of their capital markets became more apparent to the outside world and hence, the institutions that protect investors and creditors become more important hence, they influence behavior. Once again, it is outside the scope of this paper to test for this effect, but what is clear is that there is an unambiguous change in the importance of institutions after IFRS for GIPS in regards to book to market measures.

There are some differences with the accruals measures of conservatism. Prior to IFRS, code law has two significant institutional variables but none after IFRS. When I examine them prior to IFRS, the greater the *RuleofLaw* in code law countries, the greater the level of conservatism for both accruals measures of conservatism. Higher levels of enforcement would create an incentive for code law firms to report their earnings more conservatively, most likely to avoid the eyes of authorities. *Anti-SelfDeal* has a negative relationship with both accruals measures. *RuleofLaw* and *Anti-SelfDeal* no longer effect either accrual measure after IFRS. Overall for these accrual measures, IFRS replaces the need for these institutional variables for code law countries. There is no change in the effect of institutional variables on either accruals method for GIPS. The institutional variables for common law observations all change, but the effects are dependent on which accruals measure is being used. Overall, code law observations appear to have the most sensitivity to the change to IFRS.

Even though it is outside the bounds of this paper, it is important to look at how the factors that influence observed accounting outcomes change. Why does something like rule of law increase accruals conservatism for code law countries prior to IFRS, but not after? Does IFRS act as a substitute mechanism for institutional factors after its implementation for code law countries? Then why does it not do this for GIPS? Why do institutional factors not matter for book to market measures before IFRS but do matter after for GIPS? Ultimately, how does adopting IFRS affect how institutions affect other accounting properties? Why can the effect of institutions be overcome for some measures but not others, for some kinds of countries, not others? In this section I have put forward some suggestions but future research should find testable hypotheses for further analysis.

The other component of the results that needs to be discussed is how the level of unconditional conservatism changes between countries. Univariate tests of the mean and median in Table 7 and 8 indicate that common law observations are the most unconditionally conservative, followed by code law observations, and then GIPS over all four measures of unconditional conservatism. Multivariate analysis

uses regression results over all data in Table 12, over all observations separated by time periods in Table 13, and specific country-classification regressions in Table 14³⁰. Regressions over all data show common law observations have greater levels of unconditional conservatism than code law observations while GIPS observations have lower levels of conservatism, but only for the accrual measures. Interaction variables reveal that common law countries decrease their conservatism after IFRS relative to code law observations over all four measures, while GIPS increase their level of conservatism relative to code law observations, but once again, only for accruals measures. Regressions run strictly over pre-IFRS observations reveal that prior to IFRS, code law countries exhibit higher levels of conservatism except for the one period accruals measure where there is no statistical difference. After IFRS, there is no statistical difference between code and common law observations for book to market measures indicating that the conservatism that existed prior no longer exists. Firms have moved to a similar level of conservatism, *ceteris paribus*, for book to market measures of conservatism. Common law observations have the same level of unconditional conservatism for one period accruals measures prior to IFRS, and a marginally greater amount after IFRS. However, the results for the multi-period accruals measure is more consistent with the book to market results with common law countries having greater conservatism prior to IFRS and a lesser amount after, even though some differences still occur with this measure.

GIPS observations have a lower level of conservatism prior to IFRS for three out of the four unconditional measures (the book to market of assets measure is negative but insignificant). GIPS countries have a higher level of book to market conservatism after IFRS, but there is no difference between GIPS and code law countries for the accruals measures. GIPS and code law countries, therefore, have no discernable difference after IFRS for the accruals models and there was a movement

³⁰ Tables 19 and 20 in the Robustness section can be used to differentiate between the *IFRSEffect* and the *MADEffect*. However, the net effect of those is what is ultimately observed in the *Post-IFRS* time period so all results will be interpreted at the net observable behavior.

towards each other. Overall this suggests that IFRS has induced firms to act differently when it comes to unconditional conservatism. The mechanism as to why this occurs is split between changes associated with IFRS, those associated with the MAD Directive, and things that change the way institutional factors affect conservatism.

Chapter 5

Conditional Conservatism Results

5.1 Chow Tests for Structural Breaks for Conditional Conservatism

Chow tests are also used to test for structural breaks for the measures of conditional conservatism in the same way they were used to test for structural breaks in the unconditional conservatism models that were described in Section 4.3, *Chow Tests for Structural Breaks for Unconditional Conservatism*. F-tests are used to test for a structural break between the pre- (1996-2001) and inter- (2002-2004) IFRS time periods and the inter- (2002-2004) and post- (2005-2010) time periods. Table 15 on the following page shows the results of the Chow tests for the measures of conservatism. All F-tests show a break in the data between the 1996-2001 and 2002-2004 and from 2002-2004 and 2005-2010 indicating the beta coefficients differ between the time-periods. Therefore, to test the effect of IFRS, the intermediate time period should be eliminated.

Table 15: Structural Change Tests for Conditional Conservatism

	<i>1 period Basu</i>					<i>2 period Basu</i>				
	All (1)	All (2)	Code (3)	GIPS (4)	Common (5)	All (1)	All (2)	Code (3)	GIPS (4)	Common (5)
<i>Intercept</i>	-0.124*	-0.121	0.241	-0.572	0.043	0.111	-0.023	0.544*	4.690	0.191**
<i>D</i>	-0.241***	-0.216	-1.412***	-10.571*	-0.311***	-0.614***	-0.265	-2.326***	-21.567***	-0.640***
<i>R</i>	0.129***	0.117*	-0.101	0.199	-0.028	0.022	0.075	-0.239	-5.351*	-0.107**
<i>D*R</i>	0.297***	0.302**	1.479***	-11.099*	0.306***	0.706***	0.258	2.337***	17.921*	0.593***
<i>RuleofLaw</i>	0.011*	0.011	-0.032	0.113		-0.013	0.001	-0.069**	-1.296	
<i>RuleofLaw*D</i>	-0.012	-0.014	0.115***	2.802*		0.011	-0.025	0.196***	5.667***	
<i>RuleofLaw*R</i>	-0.012***	-0.010	0.011	0.558		0.000	-0.005	0.028	1.451*	
<i>RuleofLaw*D*R</i>	0.008	0.008	-0.117***	-2.937*		-0.022	0.025	-0.199***	-4.695*	
<i>Anti-SelfDeal</i>	-0.031	-0.032	0.099	-1.156	0.027	-0.152***	-0.136***	0.117	13.876	0.005
<i>Anti-SelfDeal *D</i>	0.068	0.066	-0.168	-32.083*	0.057	0.144**	0.105	-0.029	-64.110***	-0.025
<i>Anti-SelfDeal*R</i>	-0.001	0.001	0.021	-6.572	-0.039	0.065**	0.059**	0.037	-16.256*	-0.031
<i>Anti-SelfDeal *D*R</i>	-0.093*	-0.094*	0.077	33.570*	-0.110	-0.176**	-0.128*	0.017	53.301*	-0.016
<i>CredRights</i>	-0.005	-0.004	0.005	0.010	-0.029	-0.005	-0.007	0.007	-0.022	-0.064**
<i>CredRights*D</i>	0.005	0.005	-0.014	0.318*	0.008	0.006	0.009	-0.016	0.516**	0.075*
<i>CredRights*R</i>	-0.002	-0.002	-0.004	0.068	0.016	-0.006	-0.005	-0.009	0.092	0.037**
<i>CredRights*D*R</i>	-0.007	-0.007	0.010	-0.335*	0.005	-0.006	-0.010	0.019	-0.049*	-0.062
<i>UseEuro</i>	-0.022*	-0.023*	-0.030	-0.063*	0.007	-0.103***	-0.103***	-0.115***	-0.174***	-0.080
<i>UseEuro*D</i>	0.058***	0.058***	0.112***	0.010	0.005	0.145***	0.144***	0.257***	0.199**	0.096
<i>UseEuro*R</i>	-0.007	-0.007	0.000	0.008	-0.022	0.020**	0.020*	0.030**	0.053*	0.026
<i>UseEuro*D*R</i>	-0.090***	-0.090***	-0.142***	-0.027	-0.032	-0.184***	-0.184***	-0.298***	-0.223**	-0.097
<i>Techno</i>	-0.028**	-0.029**	-0.048***	0.005	-0.007	-0.059***	-0.060***	-0.086***	-0.035	-0.032
<i>Techo*D</i>	0.100***	0.100***	0.116***	0.131*	0.068***	0.168***	0.168***	0.181***	0.026	0.145***
<i>Techno*R</i>	-0.003	-0.003	0.003	0.003	-0.013	-0.011	-0.011	-0.003	0.042	-0.024
<i>Techno*D*R</i>	-0.089***	-0.088***	-0.106***	-0.174**	-0.044*	-0.160***	-0.160***	-0.182***	-0.032	-0.115***
<i>Common</i>	0.018	0.018				0.022	0.030			
<i>Common*D</i>	0.038	0.036				0.088**	0.067*			
<i>Common*R</i>	-0.019	-0.019				-0.029**	-0.033**			
<i>Common*D*R</i>	-0.043	-0.044				-0.110**	-0.082*			
<i>GIPSDummy</i>		-0.001					0.043			
<i>GIPSDummy*D</i>		-0.010					-0.199***			
<i>GIPSDummy*R</i>		0.004					-0.017			
<i>GIPSDummy*D*R</i>		0.000					0.154***			
<i>R²</i>	0.297	0.297	0.290	0.262	0.333	0.318	0.319	0.312	0.307	0.363
<i>Break Point1</i>	13,839	13,839	5,878	1,469	6,494	11,264	11,264	4,627	1,203	5,436
<i>F-test</i>	13.75***	13.21***	10.92***	3.15***	5.34***	18.62***	19.86***	13.25***	5.66***	6.65***
<i>BreakPoint2</i>	23,011	23,011	10,237	2,609	10,167	19,802	19,802	8,716	2,212	8,876
<i>F-test</i>	6.63***	6.66***	6.92***	3.06***	3.39***	8.35***	8.98***	8.71***	3.82***	4.20***
	<i>3 period Basu</i>									
	All (1)	All (2)	Code (3)	GIPS (4)	Common (5)					
<i>Intercept</i>	0.432***	-0.020	0.990***	-2.446	0.130					

<i>D</i>	-0.826***	0.036	-3.160***	-16.502	-0.768***
<i>R</i>	-0.106*	0.014	-0.500**	-1.577	-0.000
<i>D*R</i>	0.993***	-0.179	2.891***	12.296	0.810***
<i>RuleofLaw</i>	-0.043***	0.004	-0.124***	0.568	
<i>RuleofLaw*D</i>	0.016	-0.074***	0.274***	4.395	
<i>RuleofLaw*R</i>	0.015***	0.003	0.064***	0.446	
<i>RuleofLaw*D*R</i>	-0.035*	0.088***	-0.257***	-3.252	
<i>Anti-SelfDeal</i>	-0.176***	-0.124**	0.453**	-7.096	-0.021**
<i>Anti-SelfDeal *D</i>	0.066	-0.038	0.396	-51.367	0.149
<i>Anti-SelfDeal *R</i>	0.072**	0.059**	-0.156	-4.844	0.081
<i>Anti-SelfDeal *D*R</i>	-0.081	0.055	0.558	38.386	-0.036
<i>CredRights</i>	-0.025***	-0.030***	-0.002	0.133	-0.014
<i>CredRights*D</i>	0.036***	0.044***	0.003	0.557*	0.049
<i>CredRights*R</i>	0.002	0.003	-0.009	0.008	-0.001
<i>CredRights*D*R</i>	-0.035**	-0.047***	0.002	-0.461	-0.079
<i>UseEuro</i>	-0.147***	-0.146***	-0.152***	-0.152**	-0.130*
<i>UseEuro*D</i>	0.190***	0.189***	0.326***	0.109	0.199**
<i>UseEuro*R</i>	0.034***	0.034***	0.048***	0.044	0.038
<i>UseEuro*D*R</i>	-0.258***	-0.266***	-0.402***	-0.317*	-0.205*
<i>Techno</i>	-0.068***	-0.072***	-0.118***	-0.117	-0.002
<i>Techno*D</i>	0.146***	0.148***	0.172***	0.10	0.085*
<i>Techno*R</i>	-0.032***	-0.032***	-0.016	0.082	-0.068***
<i>Techno*D*R</i>	-0.134***	-0.135***	-0.142***	-0.030	-0.104**
<i>Common</i>	-0.016	0.012			
<i>Common*D</i>	0.158***	0.109**			
<i>Common*R</i>	-0.022	-0.029*			
<i>Common*D*R</i>	-0.198***	-0.131**			
<i>GIPSdummy</i>		0.143***			
<i>GIPSdummy*D</i>		-0.282***			
<i>GIPSdummy*R</i>		-0.038*			
<i>GIPSdummy*D*R</i>		0.394***			
<i>R</i> ²	0.327	0.329	0.328	0.305	0.386
Break Point1	9,241	9,241	3,688	951	4,604
F-test	20.98***	23.87***	14.45***	7.30***	5.69***
BreakPoint2	16,723	16,723	7,202	1,802	7,721
F-test	14.74***	17.83***	7.71***	7.65***	4.98***

Chow test regressions are based off Basu (1997) and Ahmed and Duellman (2007) and are used to test for a structural break between the pre- IFRS (1996-2001), inter-IFRS (2002-2004), and post-IFRS (2005-2010) time periods. The dependent variable is $E_{t,t-j}/P_{t,t-j-1}$ is income before extraordinary items cumulated from year $t-j$ to year t . $P_{t,t-j-1}$ is the market value of equity at the end of year t . $D_{t,t-j}$ is a dummy variable equal to one if the return, $R_{t,t-j}$, is less than one. $R_{t,t-j}$ is the buy and hold return starting 4 months after the end of the fiscal year $t-j-1$ and ending 4 months after the end of year t . *RuleofLaw* = scale of 0 to 10 and is a monthly average from 1982 to 1995 of the tradition of law and order from the International Country Risk Guide. *Anti-SelfDeal* = a measure of shareholders rights on a scale from 0 to 1 where a score of 1 represents a higher level of shareholder rights (Djankov, 2008). *CredRights* = an index that ranges from 0 to 4 from company law or bankruptcy laws from La Porta et al. (1997) where 1 is added when one of 4 dimensions of creditor rights is fulfilled in the company or bankruptcy laws of a country. *UseEuro* = an indicator variable equal to one if a firm's financial statements are reported in Euros. This is to control for any confounding events that are linked to a common currency. Regressions are run with the following control variables: *Size*, *Sales*, *Cfo_ta*, and *Leverage* and their respective interaction variables with *D*, *R*, and the three-way interaction with *D*R*. Code or common law countries are defined by La Porta et al. (1997, 1998) except for the Netherlands which is classified as common law. Countries known as the GIPS (Portugal, Italy, Greece, and Spain, are tested separately in their own group and are not included in the code law countries. The common law countries use only rule of law and creditor rights because there is not enough variation between the three countries to use all 3 institutional variables. Significance of less than 0.10 is denoted by *, significance of less than 0.05 is denoted as **, and significance of less than 0.01 is denoted by ***. All variables are converted to British Pounds and are Winsorized at the top and bottom 5%.

5.2 Regression Results for Conditional Conservatism

Table 16 and Table 17 in the preceeding pages present regression results for the all three backward cumulation measures of conditional conservatism. For brevity, the regression results for the control variable, *Size*, *Sales*, *Cfo_ta*, and *Leverage* are not included in the table although those control variables and their respective interactions with the returns, the returns dummy, and the three-way interaction with the return and returns dummy are included in the regressions. All regressions include industry fixed effects and the standard errors are clustered by firm and by industry. Table 16 includes all observations and looks at differences in country-classification by a country-classification dummy while Table 17 looks at regression results separately by country-type.

Consistent with expectations in Ahmed and Duellman (2007), Table 16 shows the sign on $\beta_1 (D_i)$ is negative, the sign of $\beta_2 (R_i)$ is positive, and the sign on $\beta_3 (D_i * R_i)$ is positive across all three amounts of backwards cumulation. The R^2 measures do not differ greatly between the pre- and post-IFRS time periods. However, the overall timeliness increases as the cumulation period increases. The greater the backward cumulation, the greater timeliness increases. When there is a two period backward cumulation ($j=2$), overall timeliness is greater prior to IFRS as measured by the R^2 . A higher *RuleofLaw* lowers timely gain recognition prior to IFRS. However, after IFRS, the *RuleofLaw* does not affect gain recognition when $j=0$ and $j=1$. However, when looking at the two-period backward cumulation ($j=2$), *RuleofLaw* increases timely gain recognition. *Anti-SelfDeal* does not affect timeliness in any time period for any measure of j . *CredRights* affects incremental timely loss recognition, but only when there is no backward cumulation. When $j=0$, an increase in creditor rights decreases the incremental timely loss recognition prior to IFRS, but after IFRS, an increase in creditor rights marginally increases incremental timely loss recognition. The indicator variable, *Techno*, shows when a firm belongs to the technology sector prior to IFRS when there is no backwards cumulation ($j=0$), there is an increase in timely gain recognition.

Table 16: Conditional Conservatism Regressions Bifurcated by Time Period

	j=0				j=1				j=2			
	All	All	Pre	Post	All	All	Pre	Post	All	All	Pre	Post
<i>D</i>	-0.234	-0.236	0.106	-0.160	-0.339	-0.382	0.414	-0.430	-0.415	-0.453	-0.129	-0.461
<i>R</i>	0.141**	0.137**	0.295***	0.124**	0.168**	0.154*	0.543***	-0.001	0.078	0.048	0.553***	-0.126
<i>D*R</i>	0.277*	0.283*	0.006	0.222	0.343	0.396	-0.406	0.490*	0.407	0.432	0.342	0.531
<i>RuleofLaw</i>	0.014	0.013	0.045***	-0.001	0.020	0.015	0.101***	-0.030**	0.019	0.012	0.169***	-0.062***
<i>RuleofLaw*D</i>	-0.013	-0.014	-0.051***	-0.003	-0.024	-0.019	-0.098*	0.011	-0.041	-0.042	-0.099	0.014
<i>RuleofLaw*R</i>	-0.012	-0.012	-0.031***	-0.004	-0.014	-0.011	-0.047**	0.009	-0.005	-0.002	-0.053**	0.024**
<i>RuleofLaw*D*R</i>	0.011	0.011	0.041**	-0.001	0.022	0.017	0.098	-0.015	0.042	0.044	0.077	-0.021
<i>Anti-SelfDeal</i>	0.001	0.008	0.024	0.048	-0.009	0.012	0.029	0.023	0.009	0.044	0.148	-0.014
<i>Anti-SelfDeal *D</i>	0.074	0.065	-0.045	0.094	0.051	0.037	-0.094	0.089	-0.024	-0.065	0.015	-0.105
<i>Anti-SelfDeal *R</i>	-0.013	-0.015	-0.024	-0.035	-0.002	-0.005	0.018	-0.014	-0.004	-0.009	0.023	-0.006
<i>Anti-SelfDeal *D*R</i>	-0.108	-0.104	0.004	-0.132*	-0.090	-0.095	0.075	-0.139	0.032	0.058	-0.075	0.184
<i>CredRights</i>	-0.005	-0.004	-0.006	0.004	-0.002	-0.000	0.004	0.012	-0.021	-0.015	-0.024	0.005
<i>CredRights*D</i>	0.010	0.009	0.024*	-0.015	0.009	0.008	0.035	-0.031*	0.030	0.027	0.078	-0.016
<i>CredRights*R</i>	-0.000	-0.000	-0.003	-0.003	-0.004	-0.003	-0.017*	-0.005	0.004	0.003	-0.008	-0.002
<i>CredRights*D*R</i>	-0.008	-0.008	-0.026**	0.020*	-0.010	-0.010	-0.040	0.033*	-0.030	-0.028	-0.084	0.013
<i>Techno</i>	0.007	0.006	-0.089***	0.038***	-0.022	-0.023	-0.142***	0.006	0.006	0.002	-0.196***	0.046
<i>Techno *D</i>	0.057*	0.060**	0.179***	0.009	0.095*	0.099**	0.261***	0.043	0.015	0.019	0.256**	-0.039
<i>Techno *R</i>	-0.023***	-0.021***	0.025***	-0.038***	-0.023	-0.022	0.026	-0.034***	-0.052***	-0.049***	0.023	-0.067***
<i>Techno *D*R</i>	-0.058**	-0.061**	-0.156***	-0.017	-0.083**	-0.091**	-0.247***	-0.029	-0.014	-0.016	-0.246**	0.044
<i>UseEuro</i>	0.002	0.026	-0.021	0.063**	-0.019	0.034	0.012	0.016	-0.048	0.042	0.080	-0.031
<i>UseEuro*D</i>	0.068***	0.046**	0.123***	-0.048*	0.107***	0.063*	0.145***	-0.010	0.093	0.002	0.159*	-0.025
<i>UseEuro*R</i>	-0.015	-0.023**	0.009	-0.045***	-0.007	-0.019	0.013	-0.017	0.009	-0.009	0.022	0.003
<i>UseEuro*D*R</i>	-0.097***	-0.079***	-0.154***	0.022	-0.149***	-0.105**	-0.169***	-0.032	-0.152	-0.046	-0.251**	-0.021
<i>Common</i>	0.010	-0.023	-0.009	0.032*	0.002	-0.062	0.006	0.008	-0.031	-0.191***	-0.024	-0.011
<i>Common*D</i>	0.238	0.062	0.072*	-0.047	0.086	0.147**	0.100	0.026	0.166**	0.346***	0.115	0.134
<i>Common*R</i>	-0.016	-0.010	-0.006	-0.026*	-0.024	-0.025	-0.035	-0.020	-0.018	0.013	-0.036	-0.016
<i>Common*D*R</i>	-0.030	-0.053	-0.065*	0.028	-0.088	-0.131**	-0.102	-0.039	-0.192**	-0.347***	-0.156	-0.191**
<i>GIPS</i>	0.015	0.062	0.109***	-0.036	0.079*	0.184***	0.270***	-0.057	0.147***	0.313***	0.433***	-0.081*
<i>GIPS*D</i>	-0.042	-0.038	-0.042	-0.022	-0.119*	-0.088	-0.056	-0.047	-0.212**	-0.130	-0.035	-0.043
<i>GIPS*R</i>	-0.010	-0.035	-0.065***	0.020	-0.042*	-0.080**	-0.114**	0.017	-0.053**	-0.084**	-0.105**	0.018
<i>GIPS*D*R</i>	0.036	0.035	0.025	0.009	0.145**	0.142	0.099	0.057	0.268**	0.318	0.210	0.035
<i>Post-IFRS</i>	-0.054***	-0.083***			-0.139***	-0.190***			-0.225***	-0.341***		
<i>Post-IFRS*D</i>	0.041*	0.080***			0.116***	0.181***			0.282***	0.437***		
<i>Post-IFRS*R</i>	0.023**	0.029**			0.047***	0.047**			0.059***	0.083**		
<i>Post-IFRS*D*R</i>	-0.033	-0.058*			-0.092**	-0.144***			-0.263***	-0.397***		
<i>Common*Post-IFRS</i>		0.074***				0.142***				0.289***		
<i>Common*Post-IFRS*D</i>		-0.087***				-0.149***				-0.344***		
<i>Common*Post-IFRS*R</i>		-0.022				-0.021				-0.064**		
<i>Common*Post-IFRS*D*R</i>		0.064**				0.133***				0.337***		
<i>GIPS*Post-IFRS</i>		-0.064**				-0.165***				-0.285***		
<i>GIPS *Post-IFRS*D</i>		-0.007				0.003				0.008		
<i>GIPS *Post-IFRS*R</i>		0.033				0.060*				0.061		
<i>GIPS *Post-IFRS*D*R</i>		-0.003				-0.049				-0.192		

IFRS*D*R

n	29,639	29,639	11,895	17,744	25,460	25,460	9,309	16,151	21,963	21,963	7,328	14,635
R ²	0.309	0.312	0.303	0.332	0.356	0.364	0.379	0.371	0.408	0.421	0.479	0.408

The dependent variable is $E_{t,t-j}/P_{t,t-j-1}$ is income before extraordinary items cumulated from year $t-j$ to year t . $P_{t,t-j-1}$ is the market value of equity at the end of year t . $D_{t,t-j}$ is a dummy variable equal to one if the return, $R_{t,t-j}$, is less than one. $R_{t,t-j}$ is the buy and hold return starting 4 months after the end of the fiscal year $t-j-1$ and ending 4 months after the end of year t . *RuleofLaw* = scale of 0 to 10 and is a monthly average from 1982 to 1995 of the tradition of law and order from the International Country Risk Guide. *Anti-SelfDeal* = a measure of shareholders rights on a scale from 0 to 1 where a score of 1 represents a higher level of shareholder rights (Djankov, 2008). *CredRights* = an index that ranges from 0 to 4 from company law or bankruptcy laws from La Porta et al. (1997) where 1 is added when one of 4 dimensions of creditor rights is fulfilled in the company or bankruptcy laws of a country. *UseEuro* = an indicator variable equal to one if a firm's financial statements are reported in Euros. This is to control for any confounding events that are linked to a common currency. Regressions are run with the following control variables: *Size*, *Sales*, *Cfo*, *ta*, and *Leverage* and their respective interaction variables with *D*, *R*, and the three-way interaction with *D*R*. Code or common law countries are defined by La Porta et al. (1997, 1998) except for the Netherlands which is classified as common law. Countries known as the GIPS (Portugal, Italy, Greece, and Spain, are tested separately in their own group and are not included in the code law countries. The common law countries use only rule of law and creditor rights because there is not enough variation between the three countries to use all 3 institutional variables. Significance of less than 0.10 is denoted by *, significance of less than 0.05 is denoted as **, and significance of less than 0.01 is denoted by ***. All variables are converted to British Pounds and are Winsorized at the top and bottom 5%.

Table 17: Conditional Conservatism Regressions Based on Legal System and Time Period

Panel A: Basu $j=0$

	Code Law			GIPS			Common Law		
	All	Pre	Post	All	Pre	Post	All	Pre	Post
<i>D</i>	-1.447***	-0.812	-0.802	-15.953**	-16.451	-12.035	-0.300***	-0.336***	-0.266*
<i>R</i>	-0.135	0.230	-0.198	-4.975**	-8.140*	-2.549	-0.036	-0.104	0.067
<i>D*R</i>	1.490***	0.949*	0.694	15.995*	11.909	14.537	0.301***	0.309***	0.277**
<i>RuleofLaw</i>	-0.039	0.020	-0.051	-1.038	-1.503	-0.485			
<i>RuleofLaw*D</i>	0.129***	0.053	0.078	4.232**	4.500	3.083			
<i>RuleofLaw*R</i>	0.022	-0.017	0.031	1.348**	2.228*	0.560			
<i>RuleofLaw*D*R</i>	-0.129***	-0.067	-0.059	-4.242*	-3.277	-3.777			
<i>Anti-SelfDeal</i>	0.212	0.326	0.173	11.923	17.192	5.822	0.011	-0.071	0.104
<i>Anti-SelfDeal *D</i>	-0.327	-0.289	-0.320	-48.265**	-51.530	-35.679	0.138	0.153	0.163
<i>Anti-SelfDeal *R</i>	-0.085	-0.192	-0.057	-15.456**	-25.430*	-6.643	-0.031	0.026	-0.097
<i>Anti-SelfDeal *D*R</i>	0.228	0.228	0.169	48.295*	37.655	43.422	-0.200	-0.174	-0.248**
<i>CredRights</i>	0.010	0.009	0.015	-0.097	-0.106	-0.080	-0.025*	-0.021	-0.018
<i>CredRights*D</i>	-0.017	0.007	-0.039**	0.504**	0.440	0.479**	-0.011	-0.024	-0.013
<i>CredRights*R</i>	-0.007	-0.013	-0.008	0.131**	0.191	0.079	0.015	0.014	0.014
<i>CredRights*D*R</i>	0.015	-0.010	0.036*	-0.495**	-0.315	-0.548**	0.026	0.032	0.035
<i>Techno</i>	-0.008	-0.120***	0.021	0.021	0.017	0.015	0.021	-0.073*	0.072***
<i>Techno*D</i>	0.061**	0.208***	-0.004	0.114	0.175	0.105	0.039	0.143**	-0.017
<i>Techno*R</i>	-0.016	0.041	-0.028*	-0.008	0.010	-0.010	-0.030**	0.015	-0.060***

<i>Techno</i> *D*R	-0.063**	-0.175***	-0.001	-0.188**	-0.335	-0.151*	-0.012	-0.096*	0.015
<i>UseEuro</i>	0.009	-0.001	0.023	-0.135***	-0.227***	-0.589***	0.019	-0.071	0.069
<i>UseEuro</i> *D	0.111***	0.151***	-0.014	0.155**	0.208**	0.229**	0.007	0.052	-0.001
<i>UseEuro</i> *R	-0.007	-0.009	-0.012	0.094**	0.150**	0.500***	-0.031	0.051	-0.072
<i>UseEuro</i> *D*R	-0.146***	-0.193***	0.009	-0.162*	-0.194*	-0.143	-0.034	-0.039	-0.036
<i>Post-IFRS</i>	-0.077***			0.063			-0.001		
<i>Post-IFRS</i> *D	0.057**			-0.161**			-0.016		
<i>Post-IFRS</i> *R	0.023			-0.082*			0.004		
<i>Post-IFRS</i> *D*R	-0.035			0.151**			0.017		
N	13,682	5,180	8,502	4,084	1,374	2,710	11,873	5341	6,532
R ²	0.298	0.306	0.315	0.311	0.370	0.330	0.359	0.337	0.392

Panel B: Basu j=1

	Code Law			GIPS			Common Law		
	All	Pre	Post	All	Pre	Post	All	Pre	Post
<i>D</i>	-1.662***	-1.117	-0.008	-23.671**	-41.746	-13.108	-0679***	-0.511***	-0.527***
<i>R</i>	0.088	0.643*	-0.091	-5.887*	-10.435	-3.682	-0.140*	-0.050	-0.072
<i>D</i> *R	1.762**	1.689	-0.465	19.191	25.867	14.675	0.650***	0.434**	0.574***
<i>RuleofLaw</i>	0.026	0.133	-0.025	-1.654	-2.584	-0.954			
<i>RuleofLaw</i> *D	0.114	0.049	-0.028	6.214**	11.250	3.351			
<i>RuleofLaw</i> *R	-0.007	-0.057	0.017	1.593*	2.890	0.976			
<i>RuleofLaw</i> *D*R	-0.133	-0.127	0.082	-5.020	-7.053	-3.788			
<i>Anti-SelfDeal</i>	0.095	0.009	-0.115	18.191	29.336	10.162	0.020	-0.175	0.192**
<i>Anti-SelfDeal</i> *D	0.148	0.270	0.166	-70.152**	-129.036	-37.799	0.029	0.315	-0.097
<i>Anti-SelfDeal</i> *R	0.090	-0.009	0.104	-17.927*	-32.907	-10.838	-0.042	0.066	-0.125***
<i>Anti-SelfDeal</i> *D*R	-0.102	0.086	-0.318	56.811	82.260	42.652	-0.099	-0.367	0.032
<i>CredRights</i>	-0.005	-0.003	0.010	-0.109	-0.294	-0.036	-0.059**	-0.005	-0.043
<i>CredRights</i> *D	0.001	0.037	-0.034	0.658*	1.221	0.380	0.052	-0.060	0.054
<i>CredRights</i> *R	-0.002	-0.020	-0.004	0.122	0.300	0.062	0.038*	0.002	0.043**
<i>CredRights</i> *D*R	0.003	-0.025	0.026	-0.553	-0.819	-0.421	-0.040	0.079	-0.054
<i>Techno</i>	-0.031	-0.266***	0.026	0.002	-0.033	-0.010	-0.028	-0.088*	-0.032
<i>Techno</i> *D	0.077	0.387***	-0.026	-0.114	-0.407	-0.037	0.127***	0.222***	0.118***
<i>Techno</i> *R	-0.018	0.109***	-0.045***	0.008	0.073*	-0.002	-0.024	-0.019	-0.012
<i>Techno</i> *D*R	-0.055	-0.290***	0.037	0.087	0.362	0.042	-0.106***	-0.222***	-0.085*
<i>UseEuro</i>	0.024	0.008	0.006	-0.063	-0.298**		-0.079	0.023	-0.001
<i>UseEuro</i> *D	0.158***	0.204***	-0.039	0.235	0.466*		0.136	0.044	0.067
<i>UseEuro</i> *R	-0.012	-0.001	-0.001	0.156***	0.289***		0.029	-0.023	0.006
<i>UseEuro</i> *D*R	-0.201***	-0.248***	0.048	-0.284	-0.430		-0.155*	-0.001	-0.138
<i>Post-IFRS</i>	-0.201***			-0.162*			-0.040		
<i>Post-IFRS</i> *D	0.165***			-0.032			0.026		
<i>Post-IFRS</i> *R	0.051**			-0.094*			0.024		
<i>Post-IFRS</i> *D*R	-0.122**			0.079			0.002		
n	11,720	3,927	7,793	3,593	1,105	2,488	10,147	4,277	5,870
R ²	0.357	0.376	0.374	0.403	0.514	0.361	0.405	0.425	0.419

Panel C: Basu j=2

Code Law	GIPS	Common Law
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	All	Pre	Post	All	Pre	Post	All	Pre	Post
<i>D</i>	-2.335***	-1.288	-0.846	-26.980*	-85.753*	-10.421	-0.895***	-1.147***	-0.025
<i>R</i>	-0.093	1.081**	-0.302	-1.936	-9.254	-1.325	-0.032	-0.059	0.236
<i>D*R</i>	2.553***	2.000	0.933	28.881*	88.886	11.021	0.966***	1.169***	0.096
<i>RuleofLaw</i>	0.050	0.279**	-0.044	-0.119*	-1.096	0.008			
<i>RuleofLaw*D</i>	0.142	-0.049	0.071	7.079*	-22.885*	2.596			
<i>RuleofLaw*R</i>	0.012	-0.111*	0.045	0.524	2.574	0.338			
<i>RuleofLaw*D*R</i>	-0.184*	-0.060	-0.083	-7.563*	-23.703	-2.807			
<i>Anti-SelfDeal</i>	-0.011	-0.273	0.105	0.239	13.017	-1.693	-0.104	-0.400***	0.328*
<i>Anti-SelfDeal *D</i>	0.171	1.315	-0.380	-80.270*	-264.351*	-28.473	0.115	0.710***	-0.503*
<i>Anti-SelfDeal *R</i>	-0.050	0.147	-0.094	-5.529	-29.172	-3.193	0.025	0.168*	-0.198**
<i>Anti-SelfDeal *D*R</i>	0.136	-0.882	0.525	85.751	274.848*	30.453	-0.083	-0.701***	0.607***
<i>CredRights</i>	-0.024	-0.056	0.007	0.085	-0.000	0.108	-0.034	0.003	0.018
<i>CredRights*D</i>	0.020	0.117	-0.038	0.779*	2.571**	0.186	0.065	-0.049	0.024
<i>CredRights*R</i>	0.001	-0.002	-0.006	-0.005	0.180	-0.028	0.014	-0.008	0.001
<i>CredRights*D*R</i>	-0.006	-0.087	-0.035	-0.884*	-3.009**	-0.110	-0.080	0.046	-0.046
<i>Techno</i>	-0.023	-0.222***	0.021	-0.042	-0.177	0.012	0.039	-0.178	0.102***
<i>Techno*D</i>	-0.022	0.339***	-0.109	-0.094	-1.413***	-0.020	0.046	0.313	-0.029
<i>Techno*R</i>	-0.035**	0.070	-0.055***	0.039	0.172***	-0.007	-0.083***	-0.023	-0.100***
<i>Techno*D*R</i>	0.079	-0.316***	0.186**	0.154	2.313***	0.001	-0.127**	-0.344**	-0.069
<i>UseEuro</i>	0.048	0.109*	-0.035	0.167	0.084		-0.133	-0.118	0.201
<i>UseEuro*D</i>	0.113	0.113	0.017	-0.015	0.287		0.230	0.390**	-0.217
<i>UseEuro*R</i>	-0.001	-0.010	0.023	0.103*	0.149*		0.048	0.051	-0.114
<i>UseEuro*D*R</i>	-0.181	-0.219	-0.065	-0.219	-0.621		-0.247	-0.374**	0.145
<i>Post-IFRS</i>	-0.358***			-0.500***			-0.025		
<i>Post-IFRS*D</i>	0.418***			0.258			0.071		
<i>Post-IFRS*R</i>	0.084***			-0.024			0.009		
<i>Post-IFRS*D*R</i>	-0.366***			-0.227			-0.052		
<i>n</i>	10,177	3,033	7,144	3,126	857	2,269	8,660	3,438	5,222
<i>R</i> ²	0.417	0.468	0.421	0.510	0.639	0.428	0.447	0.517	0.438

The dependent variable is $E_{t,t-j}/P_{t,t-j-1}$ is income before extraordinary items cumulated from year $t-j$ to year t . $P_{t,t-j-1}$ is the market value of equity at the end of year t . $D_{t,t-j}$ is a dummy variable equal to one if the return, $R_{t,t-j}$ is less than one. $R_{t,t-j}$ is the buy and hold return starting 4 months after the end of the fiscal year $t-j-1$ and ending 4 months after the end of year t . *RuleofLaw* = scale of 0 to 10 and is a monthly average from 1982 to 1995 of the tradition of law and order from the International Country Risk Guide. *Anti-SelfDeal* = a measure of shareholders rights on a scale from 0 to 1 where a score of 1 represents a higher level of shareholder rights (Djankov, 2008). *CredRights* = an index that ranges from 0 to 4 from company law or bankruptcy laws from La Porta et al. (1997) where 1 is added when one of 4 dimensions of creditor rights is fulfilled in the company or bankruptcy laws of a country. *UseEuro* = an indicator variable equal to one if a firm's financial statements are reported in Euros. This is to control for any confounding events that are linked to a common currency. There is not enough variation in *UseEuro* when $j=1$ or $j=2$ for firms in GIPS countries. Therefore, *UseEuro* is excluded for those regressions. Regressions are run with the following control variables: *Size*, *Sales*, *Cfo_ta*, and *Leverage* and their respective interaction variables with *D*, *R*, and the three-way interaction with *D*R*. Code or common law countries are defined by La Porta et al. (1997, 1998) except for the Netherlands which is classified as common law. Countries known as the GIPS (Portugal, Italy, Greece, and Spain, are tested separately in their own group and are not included in the code law countries. The common law countries use only rule of law and creditor rights because there is not enough variation between the three countries to use all 3 institutional variables. Significance of less than 0.10 is denoted by *, significance of less than 0.05 is denoted as **, and significance of less than 0.01 is denoted by ***. All variables are converted to British Pounds and are Winsorized at the top and bottom 5%.

However, this result does not hold over a one ($j=1$) or two ($j=2$) backward cumulation. After the implementation of IFRS, being a member of the technology sector will decrease timely gain recognition over all cumulation time-periods. Incremental timely loss recognition is lower prior to IFRS for firms in the technology field prior to IFRS, but does not affect the incremental timely loss after IFRS. The effect on incremental timely loss recognition is also similar when firms report their financial statements using the Euro. The use of the *Euro* decreases incremental timely loss recognition prior to IFRS but after IFRS does not affect the level of incremental timely loss recognition. Common law countries do not differ consistently from code law countries before or after IFRS. Firms located in GIPS countries have lower timely gain recognition prior to IFRS across all three cumulation measures, but no significant difference after IFRS. However, there is no difference in incremental timely loss recognition before or after IFRS for GIPS.

Overall, for all observations, timely gain recognition increases after the implementation of IFRS. Incremental timely loss recognition decreases after IFRS in the one ($j=1$) and two ($j=2$) backward cumulation time periods. These differences reflect changes in behavior after IFRS. I then look at each country-classification separately to examine how the effects of IFRS affect timeliness dependent on country-type in Table 17.

No institutional variables affect the timeliness in code law countries either before or after IFRS for all cumulation periods. *Techno* firms in code law countries show mixed results in regards to timeliness of gain recognition dependent on the cumulation time period. When $j=0$ and $j=2$, the technology industry does not affect timely gain recognition prior to IFRS. If a firm is in the technology industry, conditional conservatism increases prior to IFRS if $j=1$. After IFRS, all exhibit a decrease in timely gain recognition in all cumulation periods (Significance is only at 0.10 when $j=0$. This significance is 0.01 when $j=1$ and $j=2$). Incremental timely loss recognition is lower for technology

firms prior to IFRS for code law countries, After IFRS, the technology sector has no effect on the incremental timely loss recognition when $j=0$ and $j=1$; when $j=2$, there is an increase in incremental timely loss recognition after IFRS. The use of the *Euro* has no effect on gain recognition for code law observations before or after IFRS in any cumulation period. Using the Euro increases incremental timely loss recognition before IFRS when $j=0$ and $=1$, but has no effect on incremental timely loss recognition if $j=2$. Use of the Euro does not affect timely loss recognition before IFRS for any cumulation period. The overall timeliness is greater prior to IFRS than it is after IFRS for all cumulation time periods as measured by the R^2 .

The results for GIPS countries are more inconsistent across the different time periods and most of the significance that occurs is marginal. For example, an increase in *Anti-SelfDeal* decreases timely gain recognition prior to IFRS at 0.10 level of significance when there is no backward cumulation. However, there is no effect on timely gain recognition from anti-selfdeal in either of the other cumulation time periods ($j=1$ and $j=2$) before IFRS and there is no effect in all three cumulation periods after IFRS. An increase in *CredRights* decreases incremental timely loss recognition over all observations when $j=0$ and $j=2$ (significance is 0.10 when $j=2$). However, creditor rights does not affect incremental timely loss recognition when $j=1$. Prior to IFRS, when $j=0$ it does not affect incremental timely loss recognition but after IFRS, an increase in creditor rights decreases incremental timely loss recognition. When $j=1$, creditor rights does not affect incremental timely loss recognition before or after IFRS. When $j=2$, an increase in creditor rights decreases incremental timely loss recognition before IFRS, but has no effect on it after IFRS. The results are also mixed for the technology sector. When all GIPS observations are used in a regression, there is a marginal decrease in timely gain recognition (significance at 0.10) when $j=0$ and $j=1$, but no effect when $j=2$. An increase in incremental timely loss recognition after IFRS over all observations can be found only when there is no backward cumulation

($j=0$); if there is a one or a two-period backward cumulation, there is no effect on incremental timeliness of loss recognition after IFRS. The overall timeliness as measured by the R^2 is greater prior to IFRS than post-IFRS but the difference between the R^2 is smaller when there is no backward cumulation.

Common law regressions differ in key ways from code law or GIPS regressions. The R^2 does not vary as much between the pre- and post-IFRS time periods as it does for code law or GIPS regressions. Therefore, the overall timeliness does not change as much between the pre- and post-IFRS time periods as it did for code law and GIPS regressions. Similar to code and GIPS regressions, institutional variables also do not have a large impact on timeliness and the results are also dependent on which backward cumulation is used. For example, *Anti-SelfDeal* does not affect timely gain recognition when $j=0$ before or after IFRS. There is no effect on timely gain recognition prior to IFRS when $j=1$ but an increase in anti-selfdeal will decrease timely gain recognition after IFRS. There is a marginal increase in timely gain recognition (significance at 0.10) when there is an increase in anti-selfdeal prior to IFRS, but an increase in anti-selfdeal decreases timely gain recognition after IFRS. Anti-selfdeal does not affect incremental timely loss recognition prior to IFRS but an increase in anti-selfdeal decreases incremental timely loss recognition after IFRS when $j=0$. There is no effect of a change in anti-selfdeal prior or after to IFRS when $j=1$. When $j=2$, an increase in anti-selfdeal decreases incremental timely loss recognition before IFRS but increases incremental timely loss recognition after IFRS. *CredRights* only affects timely gain recognition after IFRS when $j=1$. For all other times and cumulations, it has no effect on timely gain recognition. CredRights does not affect incremental timely loss recognition in any cumulation period nor in any time period. Being in the technology sector does not affect timely gain recognition prior to IFRS but after IFRS, timely gain recognition will decrease if a firm is in the technology sector when $j=0$ and $j=2$. The technology industry lowers incremental timely gain recognition prior to IFRS (but significant only at 0.10 when $=0$). After IFRS, the technology industry does not affect incremental

timely loss recognition (except there is a marginal decrease when $j=1$ post-IFRS). Incremental timely loss is not affected by the use of the euro before or after IFRS except when $j=2$ prior to IFRS. Over all common law observations, the level of timely gain recognition and incremental timely loss recognition does not change with the implementation of IFRS.

Overall, between the tables it can be seen that timely gain recognition has increased and incremental timely loss recognition has decreased. But when each country-type is looked at separately, it appears that code law countries are driving these differences. Institutional variables appear to play a much smaller role in helping to explain the conditional conservatism and the change in conditional conservatism.

5.3 Discussion of Results for Conditional Conservatism

The literature varies on the difference between code and common law in regards to conditional conservatism. The literature review section discusses two different outcomes in regards to conditional conservatism by legal system. One line of research finds common law countries more conditionally conservative than code law countries. The other line finds there is no difference between code and common law countries. Since this is an all EU study, it is plausible that there will not be a difference between code and common law countries. However, GIPS countries may differ since they are less like common law countries than the other code law countries in the sample. H3 tests if there is a difference between code and common law observations and code law and GIPS. First, I look at the “All” columns in Table 16. *Common*R* is used to show if over the whole sample there is a difference between code and common countries in regards to timely gain recognition. This is insignificant and therefore, code and common law countries show the same level of timely gain recognition. Common law countries have lower levels of incremental timely gain recognition when $j=1$ and $j=2$ as measured by the

*Common*D*R*. If we look at the effect when it is just the pre-IFRS regressions, there is still no difference between code and common law observations on timely gain recognition. There appears to be a marginal decrease in incremental timely loss recognition but only when $j=0$. The same analysis is done for GIPS compared to code law observations. The “All” regression columns show that GIPS have lower levels of timely gain recognition when $j=1$ or $j=2$. GIPS also have higher levels of incremental timely loss recognition. The “Pre” regressions support GIPS having lower levels of timely gain recognition but it shows no difference in regards to incremental timely loss recognition. Overall, H3 is only partially supported. There is no difference in between code and common law observations but only in regards to timely gain recognition. Differences exist with incremental timely loss recognition. GIPS results are consistent with expectations that GIPS differs from code law observations. They have less timely gain recognition but more incremental timely loss recognition.

The second “All” columns for each country classification of Table 16 uses interaction variables to help look at things over time and help to test the fourth hypothesis and show how conditional conservatism changes after IFRS. Multi-way interactions between the country-indicators, D , R , and $D*R$, are used. Prior to IFRS there was no difference. There was originally no significance to *Common*R*, the measure of timely gain recognition. After IFRS, for two out of three specifications of j , the coefficient on *Common*Post-IFRS*R* remains insignificant. There is a decrease in timely gain recognition for common law observations when $j=2$. All three backward cumulation measures show an increase in incremental timely loss recognition for common law countries which can be seen in the *Common*Post-IFRS*D*R* variable. After IFRS, there is only a marginal decrease in timely gain recognition when $j=1$. No other coefficients for timely gain recognition or timely loss recognition are significant. Therefore, after the implementation of IFRS, common law countries move towards higher levels of incremental timely gain recognition while their timely gain recognition is still the same as code

law's timely gain recognition. GIPS now only has a marginal increase in timely gain recognition ($GIPS*Post-IFRS*R$) for only one measure of $j=1$ compared to prior to IFRS when they had significantly less timely gain recognition. There was no difference between code law and GIPS prior to IFRS for incremental timely loss recognition. There continues to be no difference between GIPS and code law observations in regards to incremental timely loss recognition ($GIPS*Post-IFRS*D*R$). Overall for GIPS, after IFRS they are much more like code law observations in regards to timely gain recognition and incremental timely loss recognition. H4 is partially supported because the difference no longer exists for GIPS and code law observations but there is now a difference between code law and common law observations in regards to incremental timely loss recognition.

I also examine Table 17 to look at differences between the two time periods. Two of the three cumulations ($j=1$ or $j=2$) show that there is an increase in timely gain recognition ($Post-IFRS*R$) for code law countries. GIPS marginally decrease their timely gain recognition when $j=0$ and $j=1$. Common law countries show no change in in timely gain recognition. GIPS show an increase in timely gain recognition but only when $j=0$. Common law countries have no change in timely gain recognition. Therefore, common law sees no change, code law countries increase, and GIPS decrease in regards to timely gain recognition. There are also differences post-IFRS for incremental loss recognition. Code law countries decrease their incremental timely loss recognition ($Post-IFRS*D*R$) for $j=1$ and $j=2$. GIPS show an increase in incremental timely loss recognition, but only when $j=0$. There is no change when $j=1$ or $j=2$. There is no change in incremental timely loss recognition for common law countries. Overall timeliness is measured by the R^2 . Code law countries show a slight decrease (from 0.468 in the pre-IFRS time period to 0.421) in the post-IFRS time period. Common law countries show a slightly larger decrease from 0.517 to 0.438. However, GIPS show the biggest change. Prior to IFRS, the GIPS R^2 is 0.639 and after IFRS, the R^2 is 0.428. All three country types have R^2 that are much closer to each other

after the implementation of IFRS. These results, when examined in totality, show that like unconditional conservatism, conditional conservatism is seeing a move towards more similar behavior.

The relationship between the institutional variables and the measures of conditional conservatism are different than they are for unconditional measures of conservatism; there are a lot more situations where the effect between the institutional variable and conditional conservatism does not differ between the pre- and the post- time frame. This is primarily because there are very few statistically significant relationships between the institutional variables and conditional conservatism in either time period. This is consistent with Ball et al. (2008) who find that the rule of law, corruption and creditors' rights (all from La Porta et al. 1997, 1998) contribute little to timely loss recognition based on insignificant coefficients and to overall regression results since the R^2 does not change whether those variables or included or not. The results presented here show, the *RuleofLaw* marginally decreases the timely recognition of gains when $j=2$ before IFRS but does not effect it after-IFRS. The only other institutional variable that changes for code law countries is *CredRights* when $j=0$. *CredRights* has no effect on the asymmetric incremental timely loss before IFRS but marginally increases incremental timely loss recognition after IFRS. GIPS firms show the most differences before and after IFRS for timely gain recognition and incremental timely loss recognition, but only when $j=0$. This is in contrast to common law and code law observations where institutions do not matter prior to IFRS. *RuleofLaw* marginally increases timely gain recognition prior to IFRS, but has no effect after. *Anti-SelfDeal* marginally decrease timely gain recognition prior to IFRS before IFRS but not after, and *CredRights* does not affect incremental timely loss recognition before IFRS, but decreases it after IFRS. For common law observations, *Anti-SelfDeal* does affect both beta coefficients in more than one time period. When $j=1$ and $j=2$, *Anti-SelfDeal* decreases timely gain recognition after IFRS. The effect on incremental timely loss recognition depends on the cumulation period. Over all country classifications, these institutional

variables appear to influence conditional conservatism less than they influence unconditional conservatism. One possible explanation for this may be because the primary source of conditional conservatism is debt markets (Ball et al. 2008). Debt markets, by their very nature, demand conservative accounting to lower information asymmetry between firms and their debt holders. Therefore, this demand for conservatism is not driven by any underlying country characteristic as much as it is driven by a need for lenders to protect themselves. The testing of this is outside the bounds of this paper, but this may be why that for the most part, institutional variables do not affect conditional conservatism. The only exception to this was for GIPS when $j=0$. This regression may differ from the other country-types due to the higher risk associated with lending to GIPS firms. Since GIPS firms tend to be considered greater credit risks, the information conferred on them by their institutional structures might be more important to those who demand conservative accounting.

Table 16 shows the net result of differences in conditional conservatism and how they differ by country type indicator variables while Table 17 shows how each country-type changes in its level of conditional conservatism. Once again, I postulate possible reasons for these results. From the institutional variables, it is highly unlikely it is these institutional factors that are driving these results for code or common law observations but institutions do affect timeliness for GIPS. The overall timeliness as measured by the R^2 is very sensitive to the amount of backward cumulation for all country types. Code law countries show similar levels of overall timeliness when $j=0$ and $j=1$, but lower levels of overall timeliness when $j=2$. GIPS show large decreases in overall timeliness between the pre and post time periods for all cumulation methods. Common law observations have greater overall timeliness when $j=0$ but less overall timeliness when $j=1$ and $j=2$. Code law firms show an increase in timely gain recognition after IFRS and a decrease in incremental timely loss recognition which helps explain why code law countries have the lowest changes in overall timeliness after IFRS. The results for GIPS differ

for each cumulation period. Common law observations do not have a change in timely gain recognition or incremental timely loss recognition. GIPS show the largest change in conservatism between the pre and post IFRS time frames. They are also the only country type where institutions matter so the larger magnitude of the change in total timeliness seems like it may partially be due to these institutions' effects that do not affect common law or code law observations. As mentioned above, some of that may be due with the nature of conditional conservatism being driven by debt markets within a country. In the post-IFRS time period, all countries were experiencing debt problems because of the global financial crisis, but GIPS firms had a much more difficult time dealing with their ballooning debt compared to common or code law countries. Therefore, the amount of national debt across the EU, especially within the GIPS, is one thing that could be driving the results across all countries. The strength of the existing debt markets in code and common law countries may be why the institutional variables do not seem to have as great of an effect for code and common law observations as they have for GIPS. The more perilous financial situation of GIPS countries drove institutions to become relatively more important than in countries where the situation was not as bad.

Chapter 6

Robustness Tests

6.1 The MAD Directive as an Additional Explanation for Changes in Conservatism

The question then arises if changes that occur in accounting conservatism occur because of the adoption of IFRS or changes in the level of enforcement or other country specific characteristics or enforcement mechanisms. The La Porta et al. country characteristics are static and do not change over time so they may not capture these changes in institutional structure within a country over time. One alternative explanation could be the implementation of the Market Abuse Directive (MAD). The MAD Directive could be important to reported accounting behavior like conservatism because it contains transparency standards to minimize insider trading. The goal of MAD is to harmonize enforcement between countries (Christensen, Hail, Leuz, 2011). Similar enforcement helps to create a level playing field between countries and should encourage companies to behave in similar manners. One key benefit of the MAD directive is that it is seen as a tool to lessen information asymmetry through increased disclosure (Baalbaki and Dumontier, 2012). The effect on conservatism of the MAD directive becomes an empirical question and it becomes necessary to disentangle the effect of the MAD directive from the effect of implementing IFRS.

Baalbaki and Dumontier (2012) use the bid-ask spread to proxy for information asymmetry. They find that in the case of 2005 adoption of IFRS, IFRS actually increased the information asymmetry, which resulted in a worsened information environment. The exclusion of the MAD directive would attribute the overall better information environment to IFRS. However, the better information environment was due to MAD and IFRS actually lowered the quality. Therefore, attributing changes in the accounting environment may be short sighted if the effect of the MAD directive is omitted from the

regression model. They found the primary driver of the improved information environment was the MAD directive and that IFRS actually lowered the full amount of those gains. Therefore, I re-run the empirical tests with the MAD directive also. Table 18, Panel A lists the countries in the sample along with the date that each country adopted the MAD Directive. Panel B shows the correlation between two indicator variables. The first, *MadDum*, is an indicator variable if the date of the financial statement filing is on or after the MAD adoption date in Panel A. The second, *post-IFRS*, which represents financial statements filed using IFRS after the IFRS mandatory adoption date for IFRS. Panel B shows that over all observations, there is a 0.9881 correlation between *MadDum* and *Post-IFRS*. Firms in code law countries have the highest correlation, followed by common law observations, and GIPS observations.

Table 18: Correlation between IFRS and Market Abuse Directive (MAD)

Panel A:				
<i>Country</i>	<i>MAD Adoption Date</i>			
Austria	Jan. 2005			
Belgium	Sept. 2005			
Denmark	April. 2005			
Finland	July 2005			
France	July 2005			
Germany	Oct. 2004			
Sweden	July 2005			
Greece	July 2005			
Italy	May 2005			
Portugal	April 2006			
Spain	Nov. 2005			
Ireland	July 2005			
Netherlands	Oct. 2005			
Great Britian	July 2005			
Panel B:	All	Code	GIPS	Common
Correlation	0.98812	0.99643	0.98005	0.98130

MAD Directive dates come from Christensen, Hail, and Leuz (2011).

I rerun the regressions with *MadDum*, in addition to the Post-IFRS indicator variable to see if the prior observed effects are based entirely on the switch to IFRS or if some of the results can be attributed to the MAD Directive in Table 19 and Table 20. The correlations are high, and there are high VIFs, but the regressions are returned with unique beta coefficients within the SAS environment. Originally, I ran the regressions substituting *MadDum* for *Post-IFRS*. For those regression results, every beta coefficient is within 0.001 of the current values. Just substituting *MadDum*, even separating the sample into pre- and post-time periods based on the IFRS adoption date, returns the same regression results as using *post-IFRS*. Therefore, I used both *MadDum* and *Post-IFRS* to pick up each effect separately. Table 19 is similar to Table 12 but takes into account both *MadDum* and *post-IFRS*.

Table 19: Unconditional Conservatism Regressions with All Observations with MAD and IFRS Effects

	<u><i>Bkmkassets</i></u>	<u><i>Bkmkequity</i></u>	<u><i>ConAcc1</i></u>	<u><i>ConAccMoveAvg</i></u>
<i>Size</i>	-0.025***	-0.050***	-0.004***	-0.001***
<i>Sales</i>	-0.002	-0.136***	-0.016***	-0.010***
<i>Cfo_ta</i>	0.214***	0.407***	0.219***	0.052***
<i>Leverage</i>	0.013	0.279***	0.030***	0.029***
<i>RuleofLaw</i>	0.027***	0.083***	0.002	0.001
<i>Anti-SelfDeal</i>	-0.015	0.025	0.035***	0.034***
<i>CredRights</i>	0.007**	0.030***	0.002***	0.001**
<i>Techno</i>	0.092**	0.123**	0.012*	0.008
<i>UseEuro</i>	0.034***	0.175***	0.008***	0.006***
<i>CommonDum</i>	0.120***	0.282***	0.018***	0.028***
<i>GIPSDum</i>	0.022	-0.103	-0.012***	-0.020***
<i>IFRS Effect</i>	0.190***	0.408***	0.004	0.012
<i>CommonDum*IFRS Effect</i>	-0.200***	-0.407***	-0.014	-0.037***
<i>GIPSDum*IFRS Effect</i>	-0.180***	-0.184	0.022*	0.023***
<i>MAD Effect</i>	-0.160***	-0.321***	0.016	0.010
<i>CommonDum*Mad Effect</i>	0.100**	0.155**	-0.009	0.004
<i>GIPSDum*Mad Effect</i>	0.165***	0.309**	-0.007	-0.006
n	35,008	35,003	39,046	32,840
R ²	0.870	0.599	0.155	0.140

Each of the four unconditional conservative measures are tested separately. Observations are included from the years 1996-2001 and 2005-2010. Regressions control for industry fixed effects and standard errors are clustered by industry and firm. *Bkmkassets* = book value of assets/(book value of total assets + the market value of equity (which is calculated as the number of shares outstanding multiplied the closing stock price from the last day of the fiscal year) – book value of equity). *Bkmkequity* = book value of equity / market value of equity (where mv = common shares outstanding * the closing stock price from the last fiscal day of the year). *ConAcc1* = (income before `extraordinary items – cash flows from operations + depreciation expense) / average total assets from year t and year t-1.

$ConAccMoveAvg = (ConAccI \text{ at time } t + ConAccI \text{ at time } t-1 + ConAccI \text{ at time } t+1) / 3$. All 4 measures of unconditional conservatism (*Bkmkequity*, *Bmkassets*, *ConAccI*, *ConAccMoveAvg*) are multiplied by -1 for interpretational reasons so positive numbers indicate higher levels of conservatism (Ahmed and Duellman, 2007). All regressions use size, sales, *cfo_ta*, and leverage as control variables. *Size* = natural log of average assets averaged for year *t* and *t-1*. *Sales Growth* = the percentage change in sales going from year *t-1* to year *t*. *CFO_TA* = operating cash flows divided by average assets. *Leverage* = total long term liabilities divided by average assets. *RuleofLaw*, *Anti-SelfDeal*, and *CredRights* all measure institutional factors *RuleofLaw* = scale of 0 to 10 and is a monthly average from 1982 to 1995 of the tradition of law and order from the International Country Risk Guide (La Porta et al. 1997, 1998). *Anti-SelfDeal* = a measure of shareholders rights on a scale from 0 to 1 where a score of 1 represents a higher level of shareholder rights (Djankov, 2008). *CredRights* = an index that ranges from 0 to 4 from company law or bankruptcy laws from La Porta et al. (1997) where 1 is added when one of 4 dimensions of creditor rights is fulfilled in the company or bankruptcy laws of a country (La Porta, 1997, 1998). *Techno* is an indicator variable equal to 1 if the firm is in a technological field as defined by Field et al. (2005). *Euro* is an indicator variable equal to 1 if the financial statement is reported in Euros. *CommonDum* is an indicator variable equal to one if the firm is headquartered in the Netherlands, Ireland, or the United Kingdom. *GIPSDum* is an indicator variable equal to one if the firm is headquartered in Greece, Italy, Portugal, or Spain. *IFRS Effect* is an indicator variable equal to 1 if the fiscal year is between 2005 and 2010. *Mad Effect* is an indicator variable equal to 1 if the date of the financial statements is after the implementation of the MAD Directive in the respective country of the firm. The dates associated with each country can be found in Panel A of Table 19. *IFRS Effect* and *MAD Effect* reflect the combined effect of the *Post-IFRS* indicator in the main analysis. Observations are Winsorized at the top and bottom 5%. Significance at < 0.01 is denoted as ***, significance at < 0.05 is denoted as **, and significance < 0.10 is denoted as *.

The book to market of assets measure of accruals shows that the coefficient for *post-IFRS* in Table 12 is 0.029 but is insignificant. When the variable is separated into its two components in Table 19, the *IFRS Effect* is 0.190 while *Mad Effect* is -0.160. Both of these components are significant when they are in their individual parts. If those two components are combined they offset each other and, the joint effect is 0.30 which is close to the 0.029 in Table 12. Therefore, the *IFRS Effect* is greater than the *Mad Effect* impact since the result is a positive number, but they offset each other to become close to an overall, insignificant effect on unconditional conservatism. *CommonDum*Post-IFRS* and *GIPSDum*Post-IFRS* from Table 12 can also be decomposed into an *IFRS Effect* and a *Mad Directive Effect* too. *CommonDum*PostIFRS* in Table 12 is significant -0.099. The components in Table 19 reveal that *CommonDum*IFRS Effect* is -0.200 and *CommonDum*MAD Effect* is 0.100. Both of these numbers are significant. When added together, they are -0.100. This is close to the -0.099 significant result in Table 12. Therefore, in regards to the decompiled interaction effect for common law observations, the

IFRS Effect decreases conservatism while the *Mad Effect* increases conservatism. The *IFRS Effect* is greater resulting in an overall significant decrease in conservatism for common law observations. Table 12 shows a net effect for GIPS after IFRS that is insignificant at -0.015. The *IFRS Effect* decreases conservatism for GIPS observations by -0.180 and the *Mad Effect* increases conservatism by 0.165. Both of these components are significant. However, these amounts offset each other creating a net effect of -0.015 which is the same as the results in Table 12. To summarize in words: at first glance, IFRS does not affect the book to market of asset measure of conservatism after the implementation of IFRS. However, a closer look reveals that there is a significant increase in conservatism that occurs due to the *IFRS Effect* and a significant decrease in conservatism due to the *Mad Effect*. These offset each other to create an insignificant effect on IFRS. The *IFRS Effect* for common law countries decreases conservatism while the *Mad Effect* will increase conservatism. The net effect is a significant decrease in conservatism if a firm is from a common law country. GIPS observations have a negative *IFRS Effect* and a positive *Mad Effect*. These effects offset each other so there is no net effect on conservatism for GIPS observations.

There are decomposed effects for the book to market of equity measure of conservatism. The significant increase in conservatism due to the implementation of IFRS can be decomposed into a positive and significant *IFRS Effect* and a significantly negative *Mad Effect*. The *IFRS Effect* dominates the *Mad Effect* so the net effect is an increase in conservatism. Common law countries exhibit a significantly lower level of conservatism after IFRS. The *IFRS Effect* significantly decreases conservatism for these observations and the *Mad Effect* increases conservatism. The *IFRS effect* dominates the *Mad Effect* so the overall result shows a decrease in conservatism for common law countries after IFRS. GIPS observations overall show no change in this measure of conservatism after IFRS. The *IFRS Effect* is insignificant for GIPS but the *Mad Effect* significantly increases conservatism

but at 0.05. The significance of the *Mad Effect* is not enough to overcome the insignificance of the *IFRS Effect*, and the net result is that GIPS countries do not change their level of conservatism with IFRS.

The net effects of IFRS in Table 12 are consistent for both accruals measures of conservatism. For both accruals measures of conservatism, there is a positive and significant effect on conservatism with the implementation of IFRS. Common law countries decrease their conservatism after the implementation of IFRS while GIPS increase their level of conservatism after IFRS. However, the component effects in Table 19 differ by the accruals measurement. For both accruals measures of conservatism, after the implementation of IFRS, the *IFRS Effect* is insignificant and the *Mad Effect* is insignificant. However, all of these insignificant values are positive so when the respective *IFRS Effect* and *Mad Effect* for each accruals measure are added together, it creates a net effect large enough to be significant. Therefore, the net effect of implementing IFRS is an increase in both accruals measures of conservatism even though the net effects are insignificant. Common law observations exhibit a net increase in conservatism after the implementation of IFRS. The individual composite effects in Table 19 vary depending on the accruals measure. When the one period measure of accruals is the measure of unconditional conservatism, common law observations show an insignificant negative effect for both the *IFRS Effect* and the *Mad Effect*. However, even though both of these composite effects are insignificant, they are in the same direction so when they are added together, the net effect is a significant decrease in conservatism for common law observations after IFRS. The moving average measure of conservatism has the same net affect for common law countries as the one period measure of accruals where common law countries show a net decrease in accruals unconditional conservatism in Table 12. Table 19 shows there is a significant decrease for the *IFRS Effect* for common law firms but there is an insignificant *Mad Effect* for common law firms for the moving average accruals measure. However, the negative significant *IFRS Effect* dominates the insignificant positive *Mad Effect* so the net effect shows that

common law countries decrease conservatism after the implementation of IFRS. Therefore, even though there is the same net effect for common law firms after IFRS for both accruals measures, the reasons for that result differ due to different net affects. GIPS countries increase their conservatism post IFRS for both accruals measures. Unlike common law observations, which have different net effects depending on the accruals measures, GIPS net effects are the same for both accruals measures. Table 12 shows that for both accruals measures, GIPS firms increase their conservatism post-IFRS. Table 19 shows that the *IFRS Effect* increases conservatism while the *Mad Effect* decreases conservatism for GIPS firms. However, the *Mad Effect* is insignificant. Therefore, the positive *IFRS Effect* dominates the insignificant, negative *Mad Effect* and, therefore, the net effect is an increase in conservatism post IFRS for GIPS observations.

The decomposed changes in behavior attributed separately to IFRS and the MAD Directive can also be analyzed on a country-classification basis. Table 20 on the succeeding page is similar to Table 14. They differ because Table 14 only has one variable, the *post-IFRS* indicator variable that shows the net effect, to capture the changes between the time periods, while Table 20 shows the effect of the distinct behavior attributed to IFRS and the distinct change in behavior attributed to the MAD Directive. When the two effect components in Table 20 are added together, they are always within .002 of the result of the *post-IFRS* indicator variable in Table 14. Often, the sign of the effect depends on the country classification.

Table 20: Unconditional Conservatism Regressions by Legal System and Time Period With MAD and IFRS Effects

Panel A: Bkmassets

	Code Law			GIPS			Common Law		
	All (1)	Pre (2)	Post (3)	All (1)	Pre (2)	Post (3)	All (1)	Pre (2)	Post (3)
<i>Size</i>	-0.023***	-0.023***	-0.022***	-0.067***	-0.094***	-0.015	-0.014***	-0.009	-0.017***
<i>Sales</i>	-0.019	-0.062***	0.060***	-0.094***	-0.143***	0.066***	0.071***	0.072***	0.066***
<i>Cfo_ta</i>	0.202***	0.233***	0.220**	0.538***	0.110	0.524***	0.169**	0.389***	0.037
<i>Leverage</i>	-0.126***	-0.135**	-0.084*	0.185***	0.079	0.091	0.117***	0.045	0.141***
<i>RuleofLaw</i>	0.085***	0.046	0.049**	2.193***	-0.420	2.845***			
<i>Anti-SelfDeal</i>	-0.096	0.049	-0.097	-24.936***	3.527	-32.015***	-0.065	-0.000	-0.113**
<i>CredRights</i>	-0.002	0.012	-0.007	0.324***	-0.044	0.401***	0.002	-0.025	0.020
<i>Techno</i>	0.072**	0.101***	0.057	0.100	0.048	0.114	0.110***	0.120	0.113***
<i>UseEuro</i>	0.039**	0.056***	-0.028	0.194***	0.168***	0.278***	-0.012	-0.022	-0.006
<i>Mad Effect</i>	-0.191***		-0.174***	-0.022		-0.026	-0.060*		-0.066**
<i>IFRS Effect</i>	0.216***			-0.169***			-0.014		
n	16,193	6,786	9,407	4,513	1,610	2,903	14,302	6,821	7,481
R ²	0.882	0.890	0.882	0.910	0.937	0.925	0.852	0.865	0.848

Panel B: Bkmkequity

	Code Law			GIPS			Common Law		
	All (1)	Pre (2)	Post (3)	All (1)	Pre (2)	Post (3)	All (1)	Pre (2)	Post (3)
<i>Size</i>	-0.043***	-0.059***	-0.030***	-0.213***	-0.328***	-0.028	-0.012	-0.006	-0.013
<i>Sales</i>	-0.200***	-0.337***	0.058***	-0.397***	-0.509***	0.165***	0.101***	0.081***	0.114***
<i>Cfo_ta</i>	0.290***	0.316**	0.306**	1.253***	0.278	0.956***	0.338***	0.686***	0.096

<i>Leverage</i>	0.033	0.022	0.124	0.792***	0.087	0.580***	0.460***	0.396***	0.451***
<i>RuleofLaw</i>	0.146**	0.019	0.078	5.777***	-0.845***	6.262***			
<i>Anti-SelfDeal</i>	-0.158	0.287	-0.215	-64.790***	7.643	-69.703***	-0.189**	-0.016	-0.342**
<i>CredRights</i>	0.015	0.075***	-0.016	0.842***	-0.037	0.890***	0.023	-0.037	0.068
<i>Techno</i>	0.068	0.150***	0.039	0.162	-0.026	0.248*	0.172***	0.168	0.192***
<i>UseEuro</i>	0.143***	0.164***	-0.019	0.766***	0.719***	0.677**	-0.004	-0.002	-0.013
<i>Mad Effect</i>	-0.392***		-0.313***	0.001		-0.043	-0.163***		-0.173***
<i>IFRS Effect</i>	0.492***			-0.514***			0.006		
N	16,191	6,784	9,407	4,513	1,610	2,903	14,299	6,818	7,481
R ²	0.613	0.636	0.619	0.703	0.859	0.676	0.586	0.633	0.571

Panel C: ConAcc1

	Code Law			GIPS			Common Law		
	All (1)	Pre (2)	Post (3)	All (1)	Pre (2)	Post (3)	All (1)	Pre (2)	Post (3)
<i>Size</i>	-0.003***	-0.002	-0.004***	0.002*	0.004***	-0.003*	-0.006***	-0.004***	-0.007***
<i>Sales</i>	-0.018***	-0.013***	-0.024***	-0.024***	-0.021***	-0.037***	-0.012***	-0.007**	-0.014***
<i>Cfo_ta</i>	0.252***	0.305***	0.242***	0.459***	0.573***	0.417***	0.176***	0.206***	0.151***
<i>Leverage</i>	0.021***	0.009	0.033***	0.011	-0.002	0.029**	0.052***	0.050***	0.052***
<i>RuleofLaw</i>	0.012***	0.014***	-0.005	-0.634***	-0.918***	-0.291**			
<i>Anti-SelfDeal</i>	-0.066***	-0.085***	-0.024	7.260***	10.542***	3.320**	0.047***	0.061***	0.015

<i>CredRights</i>	-0.002	-0.000	-0.002	-0.075***	-0.103***	-0.032**	0.001	0.004	-0.004
<i>Techno</i>	0.012	0.013*	0.009	0.005	-0.006	0.006	0.009*	0.011**	0.006
<i>UseEuro</i>	0.005**	0.018***	-0.017***	0.036***	0.036***	0.040***	0.018***	0.017***	0.001
<i>Mad Effect</i>	0.014		0.015	0.013		0.011	0.007		0.008
<i>IFRS Effect</i>	0.006			-0.002			-0.013*		
N	18,503	7,963	10,540	4,946	1,848	3,098	15,597	7,494	8,103
R ²	0.168	0.261	0.123	0.450	0.669	0.295	0.121	0.187	0.088

Panel D: ConAccMoveAvg

	Code Law			GIPS			Common Law		
	All (1)	Pre (2)	Post (3)	All (1)	Pre (2)	Post (3)	All (1)	Pre (2)	Post (3)
<i>Size</i>	-0.000	-0.001	0.000	0.002***	0.001	0.002*	-0.002***	-0.001	-0.003***
<i>Sales</i>	-0.010***	-0.008***	-0.011***	-0.013***	-0.007**	-0.024***	-0.009***	-0.008***	-0.008***
<i>Cfo_ta</i>	0.054***	0.098***	0.043**	0.169***	0.292***	0.112***	0.042**	0.074**	0.011
<i>Leverage</i>	0.022***	0.019**	0.026***	0.026**	0.016	0.028**	0.041***	0.041***	0.040***
<i>RuleofLaw</i>	0.010***	0.011***	-0.005	-0.623***	-0.960***	-0.308***			
<i>Anti-SelfDeal</i>	-0.042***	-0.062***	-0.004	7.141***	11.042***	3.527***	0.046***	0.060***	0.014
<i>CredRights</i>	-0.002**	-0.000	-0.001	-0.076***	-0.109***	-0.038***	0.001	0.005*	-0.005*
<i>Techno</i>	0.011*	0.013***	0.008	-0.002	-0.011	0.001	0.003	-0.000	0.003
<i>UseEuro</i>	0.005**	0.016***	-0.013***	0.018***	0.022***	0.008	0.016***	0.014**	-0.003
<i>Mad Effect</i>	0.009		0.009	0.010		0.008*	0.013**		0.014**
<i>IFRS Effect</i>	0.013			0.021***			-0.026***		
N	15,698	6,035	9,663	4,240	1,410	2,830	12,902	5,866	7,036

R ²	0.116	0.242	0.053	0.394	0.711	0.149	0.147	0.256	0.108
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Each of the four unconditional conservative measures are tested separately by legal system. *Bkmkassets* = (book value of total assets + the market value of equity (which is calculated as the number of shares outstanding multiplied the closing stock price from the last day of the fiscal year) – book value of equity) / market value of assets. *Bkmkequity* = book value of equity / market value of equity (where mv = common shares outstanding * the closing stock price from the last fiscal day of the year). *ConAcc1* = (income before extraordinary items – cash flows from operations + depreciation expense) / average total assets from year t and year t-1. *ConAccMoveAvg* = (*ConAcc1* at time t + *ConAcc1* at time t-1 + *Conacc1* at time t+1) / 3. All 4 measures of unconditional conservatism (*Bkmkequity*, *Bkmkassets*, *ConAcc1*, *ConAccMoveAvg*) are multiplied by -1 for interpretational reasons so positive numbers indicate higher levels of conservatism (Ahmed and Duellman, 2007). There are 6 regressions run for each of the dependent variables. All regressions use size, sales, cfo_ta, and leverage as control variables. *Size* = natural log of average assets averaged for year t and t-1. *Sales Growth* = the percentage change in sales going from year t-1 to year t. *CFO_TA* = operating cash flows divided by average assets. *Leverage* = total long term liabilities divided by average assets. *RuleofLaw*, *Anti-SelfDeal*, and *CredRights* all measure institutional factors of a country and come from La Porta et al. (1997, 1998). In addition, *RuleofLaw* = scale of 0 to 10 and is a monthly average from 1982 to 1995 of the tradition of law and order from the International Country Risk Guide. *Anti-SelfDeal* = a measure of shareholders rights on a scale from 0 to 1 where a score of 1 represents a higher level of shareholder rights (Djankov, 2008). *CredRights* = an index that ranges from 0 to 4 from company law or bankruptcy laws from La Porta et al. (1997) where 1 is added when one of 4 dimensions of creditor rights is fulfilled in the company or bankruptcy laws of a country. *UseEuro* = an indicator variable equal to one if a firm's financial statements are reported in Euros. This is to control for any confounding events that are linked to a common currency. Code or common law countries are defined by La Porta et al. (1997, 1998) except for the Netherlands which is classified as common law. Countries known as the GIPS (Portugal, Italy, Greece, and Spain, are tested separately in their own group and are not included in the code law countries. The common law countries use only rule of law and creditor rights because there is not enough variation between the three countries to use all 3 institutional variables. *IFRS Effect* is an indicator variable equal to 1 if the fiscal year is between 2005 and 2010. *Mad Effect* is an indicator variable equal to 1 if the the date of the financial statements is after the implementation of the MAD Directive in the respective country of the firm. The dates associated with each country can be found in Panel A of Table 19. *IFRS Effect* and *MAD Effect* reflect the combined effect of the *Post-IFRS* indicator in the main analysis. Significance of less than 0.10 is denoted by *, significance of less than 0.05 is denoted as **, and significance of less than 0.01 is denoted by ***. All variables are converted to British Pounds and are Winsorized at the top and bottom 5%. All standard errors are clustered by firm and industry.

When it comes to the book to market measure of unconditional conservatism in Table 14, there is no significant change for conservatism for code law observations after the implementation of IFRS. However, Table 20 reveals that the *Mad Effect* significantly decreases conservatism while the *IFRS Effect* significantly increases the conservatism. The coefficient for the *IFRS Effect* has a slightly larger magnitude, but the numbers end up offsetting each other to lead to the insignificant overall result that can be seen in the *post-IFRS* indicator in Table 14. Therefore, the size of both the effects are similar for code law observations. Both GIPS and common law observations show a net significant decrease in conservatism after IFRS. GIPS and common law observations differ on which effect shows the greater magnitude. Both components for GIPS observations decrease conservatism. The *IFRS Effect* is significant and negative and it is larger than the insignificant negative *Mad Effect*. Since the effects are in the same direction, the overall *post-IFRS* is negative and significant. For GIPS observations, the *IFRS Effect* drives the results. Common law countries also show a significant decrease in conservatism after IFRS. The components differ from GIPS. For common law countries, the *Mad Effect* marginally decreases conservatism while the *IFRS effect* also decreases conservatism, but the coefficient is insignificant. When the two components are combined into the *post-IFRS* variable, the combined amount is large enough to be significant. The *Mad Effect* is the larger of the two components for common law countries.

When the book to market of equity is the measure of conservatism, the net effects are similar to those for the book to market of assets for GIPS and common law observations. Code law observations differ because the book to market of equity measure of unconditional conservatism shows a significant increase in conservatism after IFRS while the book to market of assets showed no change. The net effects are the same between the two measures with the *IFRS Effect* increasing conservatism more than the *Mad Effect* decreases conservatism, so like the book to market of assets measure, the book to market

of equity has the *IFRS Effect* dominate the *Mad Effect*. The magnitude of the difference is large enough for the book to market of equity to create the significant increase in conservatism for the *post-IFRS* variable. The net effect for GIPS observations shows a significant increase in conservatism with the book to market of equity measure and the component effects being the same as for the other book to market measure with a positive yet insignificant increase for the *Mad Effect* and a significant decrease that is attributed to the *IFRS Effect*. The *IFRS Effect* drives the net results. The net effect for common law observations is also the same as for the book to market of assets. IFRS creates an overall decrease in conservatism. The *MAD Effect* decreases conservatism but the significance increases for the book to market of equity measure to 0.01. The *IFRS* is positive which differs from the book to market of assets but like that measure, it is insignificant. Therefore, when the two effects are added together, the net effect remains a significant decrease in conservatism. Therefore, common law countries once again show the *Mad Effect* leading the *IFRS Effect*.

The net *post-IFRS* coefficients for each country-type are the same for both accruals measures of conservatism. Table 14 shows that code law and GIPS observations increase their conservatism after IFRS while common law observations decrease their level of conservatism. All of these changes are statistically significant. The one period measure of conservatism shows positive, but insignificant increases in conservatism for both the *Mad Effect* and the *IFRS Effects* for code law observations. Individually, they do not affect conservatism, but are both positive so when added together to the net effect, it shows a significant increase in conservatism for code law observations after IFRS. GIPS also has insignificant components for both effects. The *Mad Effect* shows an insignificant increase in conservatism while the *IFRS Effect* shows an insignificant decrease in conservatism. Even though both are insignificant, the *Mad Effect* is larger than the *IFRS Effect*. Even though both are insignificant and in opposite directions, when added together, the *post-IFRS* coefficient becomes significant and shows an

overall increase in conservatism. Common law countries have a net significant decrease in conservatism after IFRS. The individual effects show that the *Mad Effect* increases conservatism, but insignificantly. The *IFRS Effect* decreases conservatism, but by a marginal amount. These amounts move in opposite directions with the *IFRS Effect* dominating the *Mad Effect*. When these two effects combine, the result shows a significant decrease in the one period measure of accruals for common law firms.

The net results for the moving average accruals measure of conservatism is the same on the net level as the one period measure of accruals. Like the one period measure, code law and GIPS observations increase their conservatism and common law observations decrease their conservatism after the implementation of IFRS. The individual effects for code law observations are the same as for the one period conservatism measure of accruals. Both the *Mad Effect* and the *IFRS Effect* show an increase in conservatism, but individually, these effects are insignificant. When they are coupled into the *post-IFRS* variable, they show a significant increase in conservatism after IFRS. The moving average accruals measure differs slightly from the one period measure of accruals for GIPS observations. The *Mad Effect* is the same for both because they both increase conservatism, but not significantly. The *IFRS Effect* differs. As mentioned prior, the *IFRS Effect* for the one period measure is insignificant and negative. The *IFRS Effect* for the moving average of accruals increases conservatism significantly. For this measure, the *IFRS Effect* and the *Mad Effect* move in the same direction which results in a net increase in conservatism in the *post-IFRS* variable. The directional results are the same for common law observations. The *Mad Effect* increases conservatism and the *IFRS Effect* decreases conservatism. They move in the opposite direction and the *IFRS Effect* is the dominating effect since the net effect is a decrease in conservatism. For the moving average measure, the effects are stronger. The *Mad Effect* goes from insignificant to significant at 0.05 and the *IFRS Effect* increases in significance from 0.10 to 0.01.

The same analysis is performed with the conditional conservatism regressions in Table 21 on the next page by comparing the results on the two effects to the post-IFRS indicator variable to Table 16 over all observations using country-classification dummy variables. The effect attributed to IFRS is not IFRS alone, but a combination of an IFRS effect and a Mad Directive effect, which is consistent with the unconditional conservatism results.

The net beta coefficient for the buy and hold return in Table 16, indicating greater gain recognition, shows greater timeliness of gain recognition after the implementation of IFRS across all three cumulation periods ($j=0$ to $j=2$). This net result is a result of a decrease caused by the *Mad Effect* and an increase caused by the *IFRS Effect*. The *IFRS Effect* is the stronger of the two effects, and hence, the net coefficient is positive. The magnitude of the size of each effect increases as the amount of the cumulation increases. Both separate effects are insignificant when $j=0$ and $j=1$, but they do become significant in their respective directions when $j=2$. The net effects show an insignificant decrease in incremental timely loss recognition when $j=0$. When the cumulation period increases (in $j=1$ and $j=2$), the decrease in incremental loss recognition becomes significant. The component effects differ by backward cumulation for the *Mad Effect*. The *Mad Effect* is negative when $j=0$ and $j=1$ and positive when $j=2$. However, the magnitude of all of these amounts is insignificant. The *IFRS Effect* shows less timely loss recognition across all three cumulation periods. These two effects move in the same direction for an overall decrease in incremental timely loss recognition. The combined effect is not strong enough to be significant when $j=0$, but since the magnitude of the coefficients increase as j increases, the net effect becomes significant when $j=1$. The two effects move in opposite directions when $j=2$, but the *IFRS effect* dominates the *MAD Effect* which creates the significant decrease in incremental loss recognition when $j=2$.

Table 21: Conditional Conservatism Regressions by Time with MAD and IFRS Effects

	j=0			j=1			j=2		
	All	Pre	Post	All	Pre	Post	All	Pre	Post
<i>D</i>	-0.231	0.106	-0.217	-0.337	0.414	-0.569**	-0.390	-0.129	-0.610
<i>R</i>	0.143**	0.295***	0.155*	0.171**	0.543***	0.031	0.087	0.553***	-0.028
<i>D*R</i>	0.272*	0.006	0.205	0.337	-0.406	0.537	0.393	0.342	0.484
<i>RuleofLaw</i>	0.014	0.046***	-0.000	0.020	0.101***	-0.030**	0.022	0.169***	-0.059***
<i>RuleofLaw*D</i>	-0.013	-0.051***	-0.003	-0.024	-0.098*	0.011	-0.044	-0.099	0.014
<i>RuleofLaw*R</i>	-0.012	-0.031***	-0.004	-0.014	-0.047**	0.008	-0.006	-0.053**	0.022**
<i>RuleofLaw*D*R</i>	0.011	0.041**	0.000	0.022	0.098	-0.015	0.043	0.077	-0.019
<i>Anti-SelfDeal</i>	0.001	0.024	0.050	-0.008	0.029	0.023	0.016	0.148	-0.004
<i>Anti-SelfDeal *D</i>	0.074	-0.045	0.093	0.051	-0.094	0.091	-0.029	0.015	-0.111
<i>Anti-SelfDeal *R</i>	-0.014	-0.024	-0.036	-0.003	0.018	-0.015	-0.006	0.023	-0.010
<i>Anti-SelfDeal *D*R</i>	-0.107	0.004	-0.128	-0.088	0.075	-0.137	0.035	-0.075	0.186
<i>CredRights</i>	-0.005	-0.006	0.004	-0.002	0.004	0.011	-0.021	-0.024	0.004
<i>CredRights*D</i>	0.010	0.024*	-0.015	0.009	0.035	-0.031*	0.031	0.078	-0.016
<i>CredRights*R</i>	-0.000	-0.003	-0.003	-0.004	-0.017*	-0.005	0.004	-0.008	-0.001
<i>CredRights*D*R</i>	-0.008	-0.026**	0.020*	-0.011	-0.040	0.032*	-0.031	-0.084	0.012
<i>Techno</i>	0.007	-0.089***	0.038***	-0.021	-0.142***	0.007	0.006	-0.197***	0.045
<i>Techno*D</i>	0.057*	0.179***	0.010	0.095**	0.261***	0.043	0.016	0.256**	-0.038
<i>Techno*R</i>	-0.023***	0.025***	-0.039***	-0.024	0.026	-0.034***	-0.052***	0.023	-0.067***
<i>Techno*D*R</i>	-0.059**	-0.156***	-0.018	-0.084**	-0.247***	-0.029	-0.015	-0.246**	0.042
<i>UseEuro</i>	0.003	-0.021	0.063**	-0.018	0.012	0.016	-0.048	0.080	-0.031
<i>UseEuro*D</i>	0.068***	0.123***	-0.048*	0.107***	0.145***	-0.010	0.092	0.159*	-0.027
<i>UseEuro*R</i>	-0.015	0.009	-0.045***	-0.007	0.013	-0.017	0.009	0.022	0.003
<i>UseEuro*D*R</i>	-0.097***	-0.154***	0.022	-0.149***	-0.169***	-0.032	-0.151	-0.251**	-0.018
<i>Common</i>	0.009	-0.009	0.031	0.002	0.006	0.008	-0.030	-0.024	-0.009
<i>Common*D</i>	0.024	0.072*	-0.047	0.086	0.100	0.027	0.164**	0.115	0.130
<i>Common*R</i>	-0.016	-0.006	-0.026*	-0.025	-0.035	-0.021	-0.019	-0.036	-0.017
<i>Common*D*R</i>	-0.030	-0.065*	0.029	-0.087	-0.102	-0.039	-0.187**	-0.156	-0.182*
<i>GIPS</i>	0.016	0.109***	-0.035	0.080*	0.270***	-0.056	0.156***	0.433***	-0.069*
<i>GIPS*D</i>	-0.042	-0.042	-0.023	-0.119*	-0.056	-0.047	-0.220**	-0.035	-0.054
<i>GIPS*R</i>	-0.011	-0.065***	0.019	-0.043*	-0.114**	0.015	-0.056**	-0.105**	0.013
<i>GIPS*D*R</i>	0.037	0.025	0.012	0.146**	0.099	0.058	0.274**	0.210	0.044
<i>MadEffect</i>	0.006		0.021	0.009		0.006	0.266*		0.231
<i>MadEffect*D</i>	0.088		0.062	0.134		0.139	0.123		0.179
<i>MadEffect*R</i>	-0.016		-0.027	-0.027		-0.028	-0.094*		-0.087
<i>MadEffect*D*R</i>	-0.018		0.008	-0.052		-0.054	0.065		0.025
<i>IFRSEffect</i>	-0.060			-0.148*			-0.489***		
<i>IFRSEffect*D</i>	-0.046			-0.018			0.156		
<i>IFRSEffect*R</i>	0.039			0.074			0.152***		
<i>IFRSEffect*D*R</i>	-0.015			-0.039			-0.326		
n	29,639	11,895	17,744	25,460	9,309	16,151	21,963	7,328	14,635

R ²	0.309	0.303	0.332	0.357	0.379	0.372	0.409	0.479	0.409
<p>The dependent variable is $E_{t,t-j}/P_{t,t-j-1}$ is income before extraordinary items cumulated from year $t-j$ to year t. $P_{t,t-j-1}$ is the market value of equity at the end of year t. $D_{t,t-j}$ is a dummy variable equal to one if the return, $R_{t,t-j}$, is less than one. $R_{t,t-j}$ is the buy and hold return starting 4 months after the end of the fiscal year $t-j-1$ and ending 4 months after the end of year t. <i>RuleofLaw</i> = scale of 0 to 10 and is a monthly average from 1982 to 1995 of the tradition of law and order from the International Country Risk Guide. <i>Anti-SelfDeal</i> = a measure of shareholders rights on a scale from 0 to 1 where a score of 1 represents a higher level of shareholder rights (Djankov, 2008). <i>CredRights</i> = an index that ranges from 0 to 4 from company law or bankruptcy laws from La Porta et al. (1997) where 1 is added when one of 4 dimensions of creditor rights is fulfilled in the company or bankruptcy laws of a country. <i>UseEuro</i> = an indicator variable equal to one if a firm's financial statements are reported in Euros. This is to control for any confounding events that are linked to a common currency. Regressions are run with the following control variables: <i>Size</i>, <i>Sales</i>, <i>Cfo_ta</i>, and <i>Leverage</i> and their respective interaction variables with <i>D</i>, <i>R</i>, and the three-way interaction with <i>D*R</i>. Code or common law countries are defined by La Porta et al. (1997, 1998) except for the Netherlands which is classified as common law. Countries known as the GIPS (Portugal, Italy, Greece, and Spain, are tested separately in their own group and are not included in the code law countries. The common law countries use only rule of law and creditor rights because there is not enough variation between the three countries to use all 3 institutional variables. <i>IFRS Effect</i> is an indicator variable equal to 1 if the fiscal year is between 2005 and 2010. <i>Mad Effect</i> is an indicator variable equal to 1 if the the date of the financial statements is after the implementation of the MAD Directive in the respective country of the firm. The dates associated with each country can be found in Panel A of Table 19. <i>IFRS Effect</i> and <i>MAD Effect</i> reflect the combined effect of the <i>Post-IFRS</i> indicator in the main analysis. Significance of less than 0.10 is denoted by *, significance of less than 0.05 is denoted as **, and significance of less than 0.01 is denoted by ***. All variables are converted to British Pounds and are Winsorized at the top and bottom 5%.</p>									

Table 22 shows conditional conservatism variables by country-type and can be compared to Table 17. The *Mad Effect* and the *IFRS Effect* added together are always within 0.004 of the net variable, *Post-IFRS* in Table 17. This is consistent with the prior results for unconditional conservatism and with the results over the whole sample where the net effect is the sum of the two components.

Table 22: Conditional Conservatism Regressions by Legal System and Time with MAD and IFRS Effects

Panel A: Basu $j=0$

	Code Law			GIPS			Common Law		
	All	Pre	Post	All	Pre	Post	All	Pre	Post
<i>D</i>	-1.455***	-0.812	21.316***	-16.485**	-16.451	-13.384	-0.300***	-0.336***	-0.283
<i>R</i>	-0.139	0.230	-0.063	-4.79**	-8.140*	-1.919	-0.036	-0.104	0.041
<i>D*R</i>	1.495***	0.949*	-	16.644*	11.909	16.229*	0.302***	0.309***	0.153
			22.617***						
<i>RuleofLaw</i>	-0.040	0.020	-0.052	-0.968	-1.503	-0.330			
<i>RuleofLaw*D</i>	0.130***	0.053	0.080	4.372**	4.500	3.270			
<i>RuleofLaw*R</i>	0.022	-0.017	0.032	1.287**	2.228*	0.424			
<i>RuleofLaw*D*R</i>	-0.130***	-0.067	-0.059	-4.412*	-3.277	-4.028*			
<i>Anti-SelfDeal</i>	0.213	0.326	0.173	11.176	17.192	4.211	0.012	-0.071	0.106
<i>Anti-SelfDeal *D</i>	-0.328	-0.289	-0.320	-49.771**	-51.530	-37.735	0.137	0.153	0.161
<i>Anti-SelfDeal *R</i>	-0.086	-0.192	-0.057	-14.804**	-25.430*	-5.233	-0.032	0.026	-0.098
<i>Anti-SelfDeal *D*R</i>	0.228	0.228	0.171	50.124*	37.655	46.154*	-0.199	-0.174	-0.248**
<i>CredRights</i>	0.010	0.009	0.014	-0.100	-0.106	-0.093	-0.025*	-0.021	-0.018
<i>CredRights*D</i>	-0.017	0.007	-0.038**	0.505**	0.440	0.490**	-0.011	-0.024	-0.013
<i>CredRights*R</i>	-0.007	-0.013	-0.008	0.133**	0.191	0.089*	0.016	0.014	0.014
<i>CredRights*D*R</i>	0.015	-0.010	0.036*	-0.495**	-0.315	-0.557**	0.027	0.032	0.035
<i>Techno</i>	-0.007	-0.120***	0.022	0.020	0.017	0.013	0.020	-0.073*	0.071***
<i>Techno*D</i>	0.061**	0.208***	-0.004	0.115	0.175	0.107	0.041	0.143**	-0.015
<i>Techno*R</i>	-0.016	0.041	-0.029*	-0.007	0.010	-0.008	-0.030**	0.015	-0.059***
<i>Techno*D*R</i>	-0.063**	-0.175***	-0.001	-0.188**	-0.335	-0.151*	-0.025	-0.096*	0.012
<i>UseEuro</i>	0.009	-0.001	0.023	-0.137***	-0.227***	-0.591***	0.020	-0.071	0.070
<i>UseEuro*D</i>	0.111***	0.151***	-0.013	0.155**	0.208**	0.228**	0.007	0.052	-0.002
<i>UseEuro*R</i>	-0.007	-0.009	-0.012	0.096**	0.150**	0.502***	-0.032	0.051	-0.073
<i>UseEuro*D*R</i>	-0.142***	-0.193***	0.009	-0.163*	-0.194*	-0.141	-0.037	-0.039	-0.036
<i>MadEffect</i>	0.270		0.257	0.088		0.138	-0.092		-0.059
<i>MadEffect*D</i>	-20.835***		-22.132	0.787***		0.646***	0.068		0.019
<i>MadEffect*R</i>	-0.150		-0.142	-0.074		-0.112*	0.053		0.027
<i>MadEffect*D*R</i>	21.948***		23.319***	-0.869***		-0.745***	0.081		0.127
<i>IFRSEffect</i>	-0.346			-0.022			0.090		
<i>IFRSEffect*D</i>	20.892***			-0.095***			-0.082		
<i>IFRSEffect*R</i>	0.173			-0.011			-0.048		
<i>IFRSEffect*D*R</i>	-21.983***			1.015***			-0.064		
<i>n</i>	13,682	5,180	8,502	4,084	1,374	2,710	11,873	5,341	6,532
<i>R</i> ²	0.298	0.306	0.315	0.313	0.370	0.332	0.359	0.337	0.393

Panel B: Basu $j=1$

	Code Law			GIPS			Common Law		
	All	Pre	Post	All	Pre	Post	All	Pre	Post
<i>D</i>	-1.666***	-1.117	-3.852***	-23.409**	-41.746	-12.338	-0.678***	-0.511***	-0.743***

<i>R</i>	0.087	0.643*	-0.010	-5.533	-10.435	-2.99	-0.141*	-0.050	-0.082
<i>D*R</i>	1.767**	1.689	4.107***	18.682	25.867	13.234	0.650***	0.434**	0.717***
<i>RuleofLaw</i>	0.025	0.133	-0.027	-1.582	-2.584	-0.837			
<i>RuleofLaw*D</i>	0.115	0.049	-0.026	6.136**	11.250	3.169			
<i>RuleofLaw*R</i>	-0.007	-0.057	0.018	1.501	2.890	0.816			
<i>RuleofLaw*D*R</i>	-0.133	-0.127	0.081	-4.888	-7.053	-3.468			
<i>Anti-SelfDeal</i>	0.095	0.009	-0.114	17.442	29.336	8.931	0.020	-0.175	0.191**
<i>Anti-SelfDeal *D</i>	0.146	0.270	0.163	-69.443**	-129.036	-35.852	0.029	0.315	-0.096
<i>Anti-SelfDeal *R</i>	0.089	-0.009	0.102	-16.949	-32.907	-9.150	-0.041	0.066	-0.124***
<i>Anti-SelfDeal *D*R</i>	-0.010	0.086	-0.317	55.415	82.260	39.229	-0.099	-0.367	0.031
<i>CredRights</i>	-0.005	-0.003	0.010	-0.114	-0.294	-0.042	-0.059**	-0.005	-0.044
<i>CredRights*D</i>	0.001	0.037	-0.034	0.663**	1.221	0.384	0.052	-0.060	0.055
<i>CredRights*R</i>	-0.002	-0.020	-0.004	0.125	0.300	0.067	0.038*	0.002	0.044**
<i>CredRights*D*R</i>	0.003	-0.025	0.026	-0.557	-0.819	-0.424	-0.040	0.079	-0.054
<i>Techno</i>	-0.031	-0.266***	0.026	0.002	-0.033	-0.013	-0.028	-0.088*	-0.032
<i>Techno*D</i>	0.077	0.387***	-0.026	-0.114	-0.407	-0.035	0.127***	0.222***	0.119***
<i>Techno*R</i>	-0.018	0.109***	-0.046**	0.009	0.073*	0.000	-0.024	-0.019	-0.012
<i>Techno*D*R</i>	-0.056	-0.290***	0.037	0.087	0.362	0.041	-0.107***	-0.222***	-0.086*
<i>UseEuro</i>	0.024	0.008	0.006	-0.063	-0.298**		-0.079	0.023	-0.003
<i>UseEuro*D</i>	0.158***	0.204***	-0.038	0.236	0.466*		0.135	0.044	0.068
<i>UseEuro*R</i>	-0.012	-0.001	-0.001	0.157***	0.289***		0.029	-0.023	0.007
<i>UseEuro*D*R</i>	-0.201***	-0.248***	0.047	-0.285	-0.430		-0.156*	-0.001	-0.139
<i>MadEffect</i>	0.226		0.244	0.053		0.059	-0.075		-0.066
<i>MadEffect*D</i>	3.865***		3.833***	0.012		-0.073	0.224*		0.217*
<i>MadEffect*R</i>	-0.067		-0.086	-0.072		-0.081	0.013		0.007
<i>MadEffect*D*R</i>	-4.593***		-4.563***	0.116		0.223	-0.154		-0.143
<i>IFRSEffect</i>	-0.427*			-0.214			0.033		
<i>IFRSEffect*D</i>	-3.700***			-0.046			-0.196*		
<i>IFRSEffect*R</i>	0.118			-0.023			0.012		
<i>IFRSEffect*D*R</i>	4.471***			-0.033			0.156		
<i>n</i>	11,720	3,927	7,793	3,593	1,105	2,488	10,147	4,277	5,870
<i>R²</i>	0.357	0.376	0.375	0.403	0.514	0.362	0.406	0.425	0.420

Panel C: Basu j=2

	Code Law			GIPS			Common Law		
	All	Pre	Post	All	Pre	Post	All	Pre	Post
<i>D</i>	-2.359***	-1.288	-0.506	-26.100	-85.753*	-9.197	-0.891***	-1.147***	-0.283
<i>R</i>	-0.100	1.081**	0.152	-1.459	-9.254	-0.378	-0.030	-0.059	0.211
<i>D*R</i>	2.581***	2.000	0.886	28.509*	88.886	10.898	0.966***	1.169***	0.071
<i>RuleofLaw</i>	0.049	0.279**	-0.046	0.238	-1.096	0.651			
<i>RuleofLaw*D</i>	0.146	-0.049	0.075	6.849	-22.885*	2.179			
<i>RuleofLaw*R</i>	0.013	-0.111*	0.046	0.399	2.574	0.122			
<i>RuleofLaw*D*R</i>	-0.189*	-0.060	-0.089	-7.61*	-23.703	-2.686			
<i>Anti-SelfDeal</i>	-0.010	-0.273	0.106	-3.567	13.017	-8.564	-0.102	-0.400***	0.336**
<i>Anti-SelfDeal *D</i>	0.153	1.315	-0.398	-77.831	-264.351*	-23.967	0.114	0.710***	-0.509*
<i>Anti-SelfDeal *R</i>	-0.051	0.147	-0.096	-4.201	-29.172	-0.886	0.023	0.168*	-0.204**
<i>Anti-SelfDeal *D*R</i>	0.159	-0.882	0.550	84.678*	274.848*	29.170	-0.086	-0.701***	0.604*
<i>CredRights</i>	-0.024	-0.056	0.006	0.085	-0.000	0.098	-0.034	0.003	0.020

<i>CredRights*D</i>	0.019	0.117	-0.039	0.786*	2.571**	0.197	0.065	-0.049	0.022
<i>CredRights*R</i>	0.001	-0.002	-0.006	-0.003	0.180	-0.024	0.014	-0.008	-0.000
<i>CredRights*D*R</i>	-0.005	-0.087	0.036	-0.888*	-3.009**	-0.118	-0.079	0.046	-0.044
<i>Techno</i>	-0.022	-0.222***	0.022	-0.044	-0.177	0.014	0.038	-0.178	0.100***
<i>Techno*D</i>	-0.020	0.339***	-0.106	-0.100	-1.413***	-0.031	0.047	0.313	-0.027
<i>Techno*R</i>	-0.036**	0.070	-0.056***	0.039	0.172***	-0.010	-0.082***	-0.023	-0.099***
<i>Techno*D*R</i>	0.077	-0.316***	0.182**	0.169	2.313***	0.020	-0.129**	-0.344**	-0.074
<i>UseEuro</i>	0.048	0.109*	-0.036	0.162	0.084		-0.130	-0.118	0.212
<i>UseEuro*D</i>	0.110	0.113	0.014	-0.012	0.287		0.226*	0.390**	-0.229
<i>UseEuro*R</i>	-0.001	-0.010	0.024	0.105**	0.149*		0.046	0.051	-0.122
<i>UseEuro*D*R</i>	-0.177	-0.219	-0.060	-0.220	-0.621		-0.243*	-0.374**	0.153
<i>MadEffect</i>	1.151*		1.197**	0.321		0.372	-0.018		-0.031
<i>MadEffect*D</i>	-0.297		-0.362	0.394		0.380	0.240		0.275
<i>MadEffect*R</i>	-0.435**		-0.469**	-0.110		-0.127	0.029		0.036
<i>MadEffect*D*R</i>	-0.012		0.071	-0.287		-0.326	0.079		0.023
<i>IFRSEffect</i>	1.508**			-0.807***			-0.008		
<i>IFRSEffect*D</i>	0.714***			-0.143			-0.169		
<i>IFRSEffect*R</i>	0.519**			0.081			-0.019		
<i>IFRSEffect*D*R</i>	-0.353			0.057			-0.128		
n	10,177	3,033	7,144	3,126	857	2,269	8,660	3,438	5,222
R ²	0.417	0.468	0.422	0.511	0.639	0.432	0.448	0.517	0.440

The dependent variable is $E_{t,t-j}/P_{t,t-j-1}$ is income before extraordinary items cumulated from year $t-j$ to year t . $P_{t,t-j-1}$ is the market value of equity at the end of year t . $D_{t,t-j}$ is a dummy variable equal to one if the return, $R_{t,t-j}$, is less than one. $R_{t,t-j}$ is the buy and hold return starting 4 months after the end of the fiscal year $t-j-1$ and ending 4 months after the end of year t . *RuleofLaw* = scale of 0 to 10 and is a monthly average from 1982 to 1995 of the tradition of law and order from the International Country Risk Guide. *Anti-SelfDeal* = a measure of shareholders rights on a scale from 0 to 1 where a score of 1 represents a higher level of shareholder rights (Djankov, 2008). *CredRights* = an index that ranges from 0 to 4 from company law or bankruptcy laws from La Porta et al. (1997) where 1 is added when one of 4 dimensions of creditor rights is fulfilled in the company or bankruptcy laws of a country. *UseEuro* = an indicator variable equal to one if a firm's financial statements are reported in Euros. This is to control for any confounding events that are linked to a common currency. There is not enough variation in *UseEuro* when $j=1$ or $j=2$ for firms in GIPS countries. Therefore, *UseEuro* is excluded for those regressions. Regressions are run with the following control variables: *Size*, *Sales*, *Cfo_{ta}*, and *Leverage* and their respective interaction variables with *D*, *R*, and the three-way interaction with *D*R*. Code or common law countries are defined by La Porta et al. (1997, 1998) except for the Netherlands which is classified as common law. Countries known as the GIPS (Portugual, Italy, Greece, and Spain, are tested separately in their own group and are not included in the code law countries. The common law countries use only rule of law and creditor rights because there is not enough variation between the three countries to use all 3 institutional variables. *IFRS Effect* is an indicator variable equal to 1 if the fiscal year is between 2005 and 2010. *Mad Effect* is an indicator variable equal to 1 if the the date of the financial statements is after the implementation of the MAD Directive in the respective country of the firm. The dates associated with each country can be found in Panel A of Table 19. *IFRS Effect* and *MAD Effect* reflect the combined effect of the *Post-IFRS* indicator in the main analysis. Significance of less than 0.10 is denoted by *, significance of less than 0.05 is denoted as **, and significance of less than 0.01 is denoted by ***. All variables are converted to British Pounds and are Winsorized at the top and bottom 5%.

First, I look at the effect of timeliness of gain recognition. Code law countries show an increase in timely gain recognition across all three time periods. The magnitude increases with the amount of backward cumulation. When $j=0$, however, the change is insignificant albeit positive. The separate effects show a negative *Mad Effect* and a positive *IFRS Effect*. These separate effects are not significant for $j=0$ and $j=1$. Even though they are not significant and move in the opposite direction, the net result does become significant for the timeliness of gain recognition when $j=1$. Both components are significant when $j=2$ and the *IFRS Effect* leads the *Mad Effect*. GIPS observations show a marginal decrease in timely gain recognition when $j=0$ and $j=1$, but this becomes insignificant when $j=2$. When $j=0$ and $j=1$, both component effects show a decrease in timely gain recognition but it is insignificant but when added together, the result becomes large enough to be significant. When $j=2$, the *Mad Effect* is negative and the *IFRS Effect* is positive. Both of these are insignificant and they offset each other so the net effect is insignificant. Common law countries show an insignificant increase in timely gain recognition across all three cumulative periods. The *Mad Effect* is positive but insignificant across all backward cumulation regressions. The *IFRS Effect* is negative for $j=0$ and $j=2$ but insignificant and is positive when $j=1$. The effects offset each other for $j=0$ and $j=1$, and when $j=2$, even though they are in the same direction, the magnitude is so small that the net effect is still insignificant.

Next, I examine the joint effect of both components on the incremental timeliness of loss recognition. Code law countries have a net decrease in incremental timely loss recognition (Table 18) when $j=1$ and $j=2$, but no change when $j=0$. GIPS show an increase in incremental timely loss recognition when $j=0$, but no change when $j=1$ or $j=2$. Common law countries show no change in incremental timely loss recognition in any of the regressions. The individual effects depend on the cumulation time period for the country-types. Code law countries show an increase in conservatism attributed to the *Mad Effect* and a decrease in conservatism for the *IFRS Effect*. The net effect is that

since they are close to the same magnitude, they cancel each other out so there is no significant change. The *Mad Effect* decreases while the *IFRS Effect* increases conservatism when $j=1$. The *Mad Effect* drives the results. Both effects are negative but insignificant when $j=2$. Combined, the joint effect becomes large enough to show a decrease in incremental timely loss recognition. The results for GIPS observations also vary based on the time period that is being examined. When $j=0$ and $j=2$, the *Mad Effect* is negative and the *IFRS Effect* is positive. These coefficients are only significant when $j=0$ and at this cumulation, the positive *IFRS Effect* leads the significant positive net results. The magnitudes offset each other when $j=2$ so the net result is insignificant. The one period backward cumulation shows a positive *Mad Effect* but a negative *IFRS Effect* and they offset each other, also for an insignificant net amount. The effects offset each other when $j=1$, but here, the *Mad Effect* is positive and the *IFRS Effect* is negative. However, like $j=2$, when $j=1$ both effects are insignificant. For common law countries, all individual effect variables are insignificant and they all are in opposite directions so their effects cancel each other out. When $j=0$ or $j=2$, the *Mad Effect* is positive and the *IFRS Effect* is negative and when $j=1$, the *Mad Effect* is negative and the *IFRS Effect* is positive. Since none of these are significant and they all move in opposite directions, there is no net effect for any of the common law observations for all three cumulation measures.

The overall results of these robustness results for the *post-IFRS* variable in the original analysis is really made out of two distinct effects, the *MAD Effect* and the *IFRS Effect*. The coefficient for *post-IFRS* is always within 0.002 of the combined amount of the effect separately attributable to the Mad Directive and to IFRS. It brings additional explanatory information because it separates out the nuanced relationship between changes driven by the MAD Directive and those that are purely an effect of the switch to IFRS. At times, these two components move together and the conclusion on the effect of IFRS did not change from the original regression results. Other times they move in opposite directions

cancelling the influence out on reported behavior. There are times when the *Mad Effect* dominates while for others it is the *IFRS Effect*. The overall effect is what is actually observable in a firm's financial statements. These results show that changing a standard may not be enough to elicit a change in behavior. If there is also a change in the regulatory environment, the observable result will be a combination of the standard change and the regulatory change. This observable effect may not be what the desired outcome is once it combines with the change in behavior due to the regulation effect. It also may be the case that changing both a standard and the regulatory environment around the same time ends up negating a desired response if the effects move in opposite directions.

6.2 Alternative Definition of GIPS

GIPS has been defined as the region of Greece, Italy, Portugal, and Spain. They have been examined separately due to the fundamental differences between themselves and the rest of the countries in the sample. They are all of French origin but differ from the other French origin countries due to longstanding historical development of institutional factors discussed previously. However, some literature refers to a slightly enlarged region, GIIPS: Greece, Italy, Ireland, Portugal, and Spain. Ireland is sometimes associated with these countries for its high levels of debt and problems associated with the recent global economic crisis. GIIPS are seen as a threat to the global unity of the EU (Legrenzi and Milas, 2011). Prinz and Beck (2012) describe the problems that were encountered by the GIIPS. The global economic crisis forced states in the EU to step in to save their banking sectors. This created high budget deficits and high levels of public debt and affected expectations for further growth. As a result, banks cut back on lending which drove up interest rates. GIIPS countries had these problems exacerbated because they could not get the loans they needed at interest rates they could afford. The European Central Bank had to start a bond-buying program specifically for the GIIPS. Therefore, to take

into account that Ireland may act more like the other GIPS, I reran the analysis and separated the countries by code law, common law (now just the Netherlands and the UK), and GIIPS. Results for this are found in Tables 23 – 26.

Table 23: Unconditional Conservatism Regressions with all Observations and GIIPS

	<i>Bkmkassets</i>	<i>Bkmkequity</i>	<i>ConAcc1</i>	<i>ConAccMoveAvg</i>
<i>Size</i>	-0.026***	-0.053***	-0.004***	-0.001***
<i>Sales</i>	-0.002	-0.137***	-0.016***	-0.010***
<i>Cfo_ta</i>	0.218***	0.421***	0.219***	0.053***
<i>Leverage</i>	0.016	0.289***	0.030***	0.030***
<i>RuleofLaw</i>	0.029***	0.089***	0.002	0.002*
<i>Anti-SelfDeal</i>	0.002	0.070	0.038***	0.039***
<i>CredRights</i>	0.007**	0.029***	0.002***	0.001*
<i>Techno</i>	0.092**	0.123**	0.011*	0.008
<i>UseEuro</i>	0.036***	0.184***	0.009***	0.006***
<i>CommonDum</i>	0.112***	0.261***	0.016***	0.026***
<i>GIIPSDum</i>	0.039	-0.049	-0.009***	-0.015***
<i>Post-IFRS</i>	0.027	0.082***	0.019***	0.022***
<i>CommonDum*Post-IFRS</i>	-0.096***	-0.240***	-0.023***	-0.034***
<i>GIIPSDum*Post-IFRS</i>	-0.027	0.079	0.013***	0.015***
n	35,008	35,003	39,046	32,840
R ²	0.869	0.598	0.155	0.139

Each of the four unconditional conservative measures are tested separately. Observations are included from the years 1996-2001 and 2005-2010. Regressions control for industry fixed effects and standard errors are clustered by industry and firm. *Bkmkassets* = book value of assets/(book value of total assets + the market value of equity (which is calculated as the number of shares outstanding multiplied the closing stock price from the last day of the fiscal year) – book value of equity). *Bkmkequity* = book value of equity / market value of equity (where mv = common shares outstanding * the closing stock price from the last fiscal day of the year). *ConAcc1* = (income before extraordinary items – cash flows from operations + depreciation expense) / average total assets from year t and year t-1. *ConAccMoveAvg* = (*ConAcc1* at time t + *ConAcc1* at time t-1 + *ConAcc1* at time t+1) / 3. All 4 measures of unconditional conservatism (*Bkmkequity*, *Bkmkassets*, *ConAcc1*, *ConAccMoveAvg*) are multiplied by -1 for interpretational reasons so positive numbers indicate higher levels of conservatism (Ahmed and Duellman, 2007). All regressions use size, sales, cfo_ta, and leverage as control variables. *Size* = natural log of average assets averaged for year t and t-1. *Sales Growth* = the percentage change in sales going from year t-1 to year t. *CFO_TA* = operating cash flows divided by average assets. *Leverage* = total long term liabilities divided by average assets. *RuleofLaw*, *Anti-SelfDeal*, and *CredRights* all measure institutional factors *RuleofLaw* = scale of 0 to 10 and is a monthly average from 1982 to 1995 of the tradition of law and order from the International Country Risk Guide (La Porta et al. 1997, 1998). *Anti-SelfDeal* = a measure of shareholders rights on a scale from 0 to 1 where a score of 1 represents a higher level of shareholder rights (Djankov, 2008). *CredRights* = an index that ranges from 0 to 4 from company law or bankruptcy laws from La Porta et al. (1997) where 1 is added when one of 4 dimensions of creditor rights is fulfilled in the company or bankruptcy laws of a country (La Porta, 1997, 1998). *Techno* is an indicator variable equal to 1 if the firm is in a technological field as defined by Field et al. (2005). *Euro* is an indicator variable equal to 1 if the financial statement is reported in Euros. *CommonDum* is an indicator variable equal to one if the firm is headquartered in the Netherlands or the United Kingdom. *GIIPSDum* is an indicator variable equal to one if the firm is headquartered in Greece, Italy, Ireland, Portugal, or Spain. *Post-IFRS* is an indicator variable equal to 1 if the fiscal year is between 2005 and 2010. Observations are Winsorized at the top and bottom 5%. Significance at < 0.01 is denoted as ***, significance at < 0.05 is denoted as **, and significance < 0.10 is denoted as *.

Table 23 is like Table 12. The overall number of observations remains the same. There are now fewer common law observations since firms headquartered in Ireland are now listed as GIIPS. If the change in classification were to affect the results in this table, the coefficients associated with *CommonDum*, *GIIPSDum*, *CommonDum*Post-IFRS*, and *GIIPSDUM*Post-IFRS* would remain the same. Common law is now a one if a firm-year observation is from the Netherlands or the UK and GIIPS is if the firm year observation is from Greece, Ireland, Italy, Portugal, or Spain. The original results from Table 12 hold. The four variables mentioned above have the same interpretations. They are all significant and in the same direction whether the classification is GIPS or GIIPS. Therefore, the results in the original analysis are not being driven by the classification of Ireland as common law over GIIPS.

I then look at the unconditional conservatism regressions on a country-classification basis in Table 24 which is like Table 14. Most accounting control variables have similar beta coefficients and the significance is the same. Some of the institutional variables effects change. Therefore, the way institutional variables affect conservatism is dependent on which countries are put in the sample. *Post-IFRS* does not change for any of the unconditional conservatism values. Therefore, this net effect on unconditional conservatism stays the same whether Ireland is classified with common law or GIIPS.

Table 24: Unconditional Conservatism Regressions with by Legal System and Time Period with GIIPS

Panel A: Bkmassets

	Code Law			GIIPS			Common Law		
	All (1)	Pre (2)	Post (3)	All (1)	Pre (2)	Post (3)	All (1)	Pre (2)	Post (3)
<i>Size</i>	-0.023***	-0.023***	-0.022***	-0.063***	-0.089***	-0.010	-0.014***	-0.010	-0.017***
<i>Sales</i>	-0.019	-0.062***	0.060***	-0.086***	-0.145***	0.078***	0.070***	0.071***	0.065***
<i>Cfo_ta</i>	0.203***	0.233***	0.220**	0.467***	0.092	0.492***	0.173**	0.394***	0.038
<i>Leverage</i>	-0.126***	-0.135**	-0.084*	0.203***	0.087	0.113	0.112***	0.045	0.133***
<i>RuleofLaw</i>	0.085***	0.046	0.048**	-0.028*	-0.100***	-0.008			
<i>Anti-SelfDeal</i>	-0.096	0.049	-0.097	0.155*	-0.081	0.223*	1.150***	1.163***	1.136**
<i>CredRights</i>	-0.002	0.012	-0.007	0.097***	-0.026	0.114***	-0.461***	-0.459***	-0.482***
<i>Techno</i>	0.072**	0.101***	0.058	0.125	0.104**	0.135*	0.107***	0.117	0.110***
<i>UseEuro</i>	0.09**	0.056***	-0.029	0.187***	0.146***	0.322***	-0.032*	-0.013	-0.081
<i>Post-IFRS</i>	0.024			-0.185***			-0.071***		
n	16,193	6,786	9,407	4,824	1,742	3,082	13,991	6,689	7,302
R ²	0.882	0.890	0.882	0.905	0.931	0.920	0.852	0.865	0.849

Panel B: Bkmkequity

	Code Law			GIIPS			Common Law		
	All (1)	Pre (2)	Post (3)	All (1)	Pre (2)	Post (3)	All (1)	Pre (2)	Post (3)
<i>Size</i>	-0.043***	-0.059***	-0.030***	-0.198***	-0.304***	-0.016	-0.013*	-0.006	-0.014
<i>Sales</i>	-0.201***	-0.337***	0.058***	-0.379***	-0.529***	0.187***	0.098***	0.080***	0.110***
<i>Cfo_ta</i>	0.290***	0.316**	0.307**	1.147***	0.438**	0.895***	0.346***	0.692***	0.100
<i>Leverage</i>	0.033	0.022	0.125	0.833***	0.174	0.618***	0.435***	0.385***	0.425***
<i>RuleofLaw</i>	0.146**	0.019	0.078	0.012	-0.157***	0.075			
<i>Anti-SelfDeal</i>	-0.158	0.287	-0.214	0.296	-0.236	0.194	0.959***	1.065***	0.079*
<i>CredRights</i>	0.014	0.075***	-0.017	0.258***	0.011	0.268***	-0.420***	-0.439***	-0.432***
<i>Techno</i>	0.068	0.150***	0.040	0.209	0.079	0.279**	0.170***	0.164	0.188***

<i>UseEuro</i>	0.143***	0.164***	-0.019	0.710***	0.649***	0.768***	-0.044	-0.016	-0.180
<i>IFRS</i>	0.101***			-0.471***			-0.147***		
n	16,191	6,784	9,407	4,824	1,742	3,082	13,988	6,686	7,302
R ²	0.612	0.636	0.619	0.690	0.843	0.672	0.586	0.633	0.571

Panel C: ConAcc1

	Code Law			GIPS			Common Law		
	All (1)	Pre (2)	Post (3)	All (1)	Pre (2)	Post (3)	All (1)	Pre (2)	Post (3)
<i>Size</i>	-0.003***	-0.002	-0.004***	-0.000	0.003*	-0.004**	-0.006***	-0.004***	-0.007***
<i>Sales</i>	-0.018***	-0.013***	-0.024***	-0.020***	-0.019***	-0.027***	-0.013***	-0.007*	-0.015***
<i>Cfo_ta</i>	0.252***	0.305***	0.245***	0.405***	0.493***	0.378***	0.176***	0.207***	0.150***
<i>Leverage</i>	0.021***	0.009	0.033***	0.010	-0.003	0.029*	0.052***	0.049***	0.053***
<i>RuleofLaw</i>	0.012***	0.014***	-0.005	0.002	0.011***	-0.003			
<i>Anti-SelfDeal</i>	-0.066***	-0.085***	-0.024	0.072***	0.085*	0.059*	0.037*	0.089***	-0.068**
<i>CredRights</i>	0.002	-0.000	-0.002	-0.010**	-0.103***	-0.000	0.005	-0.006	0.026***
<i>Techno</i>	0.012	0.013*	0.009	0.010	-0.006	0.008	0.009*	0.012**	0.006
<i>UseEuro</i>	0.005**	0.018***	-0.017***	0.030***	0.036***	0.001	0.020***	0.021***	-0.001
<i>IFRS</i>	0.020***			0.018***			-0.006***		
n	18,503	7,963	10,540	5,309	2,010	3,299	15,234	7,332	7,902
R ²	0.168	0.261	0.123	0.388	0.594	0.247	0.122	0.188	0.088

Panel D: ConAccMoveAvg

	Code Law			GIPS			Common Law		
	All (1)	Pre (2)	Post (3)	All (1)	Pre (2)	Post (3)	All (1)	Pre (2)	Post (3)
<i>Size</i>	-0.000	-0.001	0.000	0.001	0.001	0.001	-0.002***	-0.001	-0.003***
<i>Sales</i>	-0.010***	-0.008***	-0.011***	-0.011***	-0.006**	-0.019***	-0.009***	-0.008***	-0.008***
<i>Cfo_ta</i>	0.038***	0.098***	0.043**	0.151***	0.271***	0.098***	0.041**	0.074**	0.010
<i>Leverage</i>	0.022***	0.019**	0.026***	0.024**	0.018	0.025**	0.041***	0.039***	0.041***
<i>RuleofLaw</i>	0.010***	0.011***	-0.005	0.003	0.012***	-0.001			

<i>Anti-SelfDeal</i>	-0.042***	-0.062***	-0.004	0.078***	0.087***	0.057*	0.069***	0.096***	0.007
<i>CredRights</i>	-0.002**	-0.000	-0.001	-0.013**	-0.014***	-0.005	-0.008**	-0.009**	-0.004
<i>Techno</i>	0.011*	0.013***	0.008	-0.001	-0.000	0.001	0.003	-0.000	0.003
<i>UseEuro</i>	0.005**	0.016***	-0.013***	0.018***	0.021***	-0.008	0.016***	0.013**	-0.004
<i>IFRS</i>	0.022***			0.031***			-0.013***		
n	15,698	6,035	9,663	4,544	1,542	3,002	12,598	5,734	6,864
R ²	0.115	0.242	0.053	0.348	0.643	0.130	0.147	0.257	0.106

Each of the four unconditional conservative measures are tested separately by legal system. *Bkmkassets* = (book value of total assets + the market value of equity (which is calculated as the number of shares outstanding multiplied the closing stock price from the last day of the fiscal year) – book value of equity) / market value of assets. *Bkmkequity* = book value of equity / market value of equity (where mv = common shares outstanding * the closing stock price from the last fiscal day of the year). *ConAcc1* = (income before extraordinary items – cash flows from operations + depreciation expense) / average total assets from year t and year t-1. *ConAccMoveAvg* = (*ConAcc1* at time t + *ConAcc1* at time t-1 + *Conacc1* at time t+1) / 3. All 4 measures of unconditional conservatism (*Bkmkequity*, *Bkmkassets*, *ConAcc1*, *ConAccMoveAvg*) are multiplied by -1 for interpretational reasons so positive numbers indicate higher levels of conservatism (Ahmed and Duellman, 2007). There are 6 regressions run for each of the dependent variables. All regressions use size, sales, cfo_ta, and leverage as control variables. *Size* = natural log of average assets averaged for year t and t-1. *Sales Growth* = the percentage change in sales going from year t-1 to year t. *CFO_TA* = operating cash flows divided by average assets. *Leverage* = total long term liabilities divided by average assets. *RuleofLaw*, *Anti-SelfDeal*, and *CredRights* all measure institutional factors of a country and come from La Porta et al. (1997, 1998). In addition, *RuleofLaw* = scale of 0 to 10 and is a monthly average from 1982 to 1995 of the tradition of law and order from the International Country Risk Guide. *Anti-SelfDeal* = a measure of shareholders rights on a scale from 0 to 1 where a score of 1 represents a higher level of shareholder rights (Djankov, 2008). *CredRights* = an index that ranges from 0 to 4 from company law or bankruptcy laws from La Porta et al. (1997) where 1 is added when one of 4 dimensions of creditor rights is fulfilled in the company or bankruptcy laws of a country. *UseEuro* = an indicator variable equal to one if a firm's financial statements are reported in Euros. This is to control for any confounding events that are linked to a common currency. Code or common law countries are defined by La Porta et al. (1997, 1998) except for the Netherlands which is classified as common law. Countries known as the GHPS (Portugal, Italy, Ireland, Greece, and Spain, are tested separately in their own group and are not included in the code law countries. The common law countries use only rule of law and creditor rights because there is not enough variation between the three countries to use all 3 institutional variables. Significance of less than 0.10 is denoted by *, significance of less than 0.05 is denoted as **, and significance of less than 0.01 is denoted by ***. All variables are converted to British Pounds and are Winsorized at the top and bottom 5%. All standard errors are clustered by firm and industry.

Conditional conservatism regressions are analyzed once the Ireland classification changes from a common law to GIIPS. Table 25 is similar to Table 16 where the whole sample is used for the regression and indicator dummies are used to look at different country classification differences. There are some minor changes in the *Common* and *GIIPS* variables³¹. For example, the beta coefficient for *Common*R* when $j=0$ in the post-IFRS time period is -0.018 and is insignificant. In the original regression results in Table 16, this variable was -0.026 and was significant at 0.10. The result of taking Ireland out of common law countries was to lower the magnitude of the common law variable from -0.026 to -0.018. The significance goes from marginally significant to insignificant as a result of this GIIPS re-definition. The direction of the signs does not change (a variable does not go from positive to negative or vice versa) for any of the differences between the two tables. Any difference between the values in Table 16 and Table 25 are less than 0.04 and all changes result in very small interpretational differences (significance decreases or increases by one level). For ease of reading, any *Common* or *GIIPS* variable that changes in significance is bolded.

³¹ *Post-IFRS*D* when $j=0$ is the only *Post-IFRS* variable to change. It goes from marginally significant at 0.10 with a coefficient of 0.041 to insignificant at 0.039. This value has been bolded in Table 26 for ease of identification.

Table 25: Conditional Conservatism Regressions by Time Period with GIIPS

	j=0			j=1			j=2		
	All	Pre	Post	All	Pre	Post	All	Pre	Post
<i>D</i>	-0.274**	0.037	-0.167	-0.371	0.292	-0.394*	-0.507	-0.352	-0.465
<i>R</i>	0.175***	0.321***	0.162**	0.206**	0.589***	0.045	0.068	0.571***	-0.118
<i>D*R</i>	0.340**	0.087	0.250	0.396	-0.269	0.471*	0.476	0.506	0.517
<i>RuleofLaw</i>	0.017	0.047***	0.003	0.023	0.102***	-0.026*	0.015	0.157***	-0.062***
<i>RuleofLaw*D</i>	-0.009	-0.044*	-0.002	-0.021	-0.086	0.008	-0.034	-0.077	0.015
<i>RuleofLaw*R</i>	-0.015**	-0.033***	-0.007	-0.018*	-0.052***	0.005	-0.004	-0.055**	0.023**
<i>RuleofLaw*D*R</i>	0.005	0.033	-0.003	0.016	0.084	-0.014	0.036	0.061	-0.021
<i>Anti-SelfDeal</i>	0.016	0.023	0.072*	-0.002	0.005	0.048	-0.032	0.057	-0.012
<i>Anti-SelfDeal *D</i>	0.095	-0.017	0.104	0.084	-0.039	0.091	0.049	0.098	-0.079
<i>Anti-SelfDeal *R</i>	-0.027	-0.029	-0.054**	-0.014	0.010	-0.033	0.005	0.023	-0.011
<i>Anti-SelfDeal *D*R</i>	-0.138*	-0.024	-0.153**	-0.136	0.016	-0.151	0-0.003	-0.132	0.160
<i>CredRights</i>	-0.004	-0.003	0.004	0.000	0.009	0.012	-0.019	-0.018	0.004
<i>CredRights*D</i>	0.009	0.022	-0.015	0.006	0.032	-0.036**	0.025	0.078	-0.023
<i>CredRights*R</i>	-0.001	-0.005	-0.003	-0.005	-0.019*	-0.006	0.004	-0.007	-0.001
<i>CredRights*D*R</i>	-0.008	-0.025	0.020*	-0.007	-0.039	0.038**	-0.024	-0.085	0.022
<i>Techno</i>	0.007	-0.088***	0.038***	-0.021	-0.140***	0.006	0.007	-0.194***	0.046
<i>Techno*D</i>	0.057*	0.178***	0.009	0.095*	0.260***	0.043	0.014	0.263**	-0.039
<i>Techno*R</i>	-0.023***	0.025	-0.038***	-0.023	0.025	-0.034***	-0.052***	0.024	-0.067***
<i>Techno*D*R</i>	-0.058**	-0.155***	-0.016	-0.084**	-0.245***	-0.029	-0.014	-0.246**	0.045
<i>UseEuro</i>	0.003	-0.021	0.065**	-0.019	0.006	0.018	-0.051	0.071	-0.029
<i>UseEuro*D</i>	0.069***	0.125***	-0.050*	0.109***	0.154***	-0.012	0.099	0.163*	-0.025
<i>UseEuro*R</i>	-0.015	0.008	-0.046***	-0.008	0.014	-0.018	0.010	0.023	0.002
<i>UseEuro*D*R</i>	-0.098***	-0.156***	0.023	-0.152***	-0.182***	-0.029	-0.159*	-0.262**	-0.021
<i>Common</i>	0.000	-0.016	0.022	-0.005	0.002	-0.003	-0.019	0.011	-0.008
<i>Common*D</i>	0.017	0.067	-0.054	0.079	0.086	0.033	0.147*	0.074	0.135
<i>Common*R</i>	-0.009	0.001	-0.018	-0.017	-0.026	-0.011	-0.021	-0.043	-0.016
<i>Common*D*R</i>	-0.017	-0.058	0.042	-0.076	-0.083	-0.039	-0.178**	-0.126	-0.198*
<i>GIIPS</i>	0.027	0.108**	-0.021	0.089**	0.257***	-0.039	0.126***	0.377***	-0.081*
<i>GIIPS*D</i>	-0.026	-0.011	-0.020	-0.102	-0.003	-0.057	-0.175**	0.023	-0.040
<i>GIIPS*R</i>	-0.020	-0.068**	0.008	-0.052**	-0.121**	0.002	-0.049**	-0.107**	0.015
<i>GIIPS*D*R</i>	0.013	-0.008	0.001	0.120*	0.038	0.060	0.237**	0.163	0.036
<i>Post-IFRS</i>	-0.054***			-0.139***			-0.224***		
<i>Post-IFRS*D</i>	0.039			0.113***			0.279***		
<i>Post-IFRS*R</i>	0.023**			0.047***			0.059***		
<i>Post-IFRS*D*R</i>	-0.031			-0.088**			-0.260***		
n	29,639	11,895	17,744	25,460	9,309	16,151	21,963	7,328	14,635
R ²	0.309	0.303	0.332	0.356	0.378	0.371	0.407	0.475	0.408

The dependent variable is $E_{t,t-j}/P_{t,t-j-1}$ is income before extraordinary items cumulated from year $t-j$ to year t . $P_{t,t-j-1}$ is the market value of equity at the end of year t . $D_{t,t-j}$ is a dummy variable equal to one if the return, $R_{t,t-j}$ is less than one. $R_{t,t-j}$ is the buy and hold return starting 4 months after the end of the fiscal year $t-j-1$ and ending 4 months after the end of year t . *RuleofLaw* = scale of 0 to 10 and is a monthly average from 1982 to 1995 of the tradition of law and order from the International Country Risk Guide. *Anti-SelfDeal* = a measure of shareholders rights on a scale from 0 to 1 where a score of 1 represents a higher level of shareholder rights (Djankov, 2008). *CredRights* = an index that ranges from 0 to 4 from company law or bankruptcy laws from La Porta et al. (1997) where 1 is added when one of 4 dimensions of creditor rights is fulfilled in the company or bankruptcy laws of a country. *UseEuro* = an indicator variable equal to one if a firm's financial statements are reported in Euros. This is to control for any confounding events that are linked to a common currency. Regressions are run with the following control variables: *Size*, *Sales*, *Cfo_ta*, and *Leverage* and their respective interaction variables with *D*, *R*, and the three-way interaction with *D*R*. Code or common law countries are defined

by La Porta et al. (1997, 1998) except for the Netherlands which is classified as common law. Countries known as the GIIPS (Portugal, Italy, Ireland, Greece, and Spain, are tested separately in their own group and are not included in the code law countries. The common law countries use only rule of law and creditor rights because there is not enough variation between the three countries to use all 3 institutional variables. Significance of less than 0.10 is denoted by *, significance of less than 0.05 is denoted as **, and significance of less than 0.01 is denoted by ***. All variables are converted to British Pounds and are Winsorized at the top and bottom 5%. All *Common* or *GIIPS* coefficients that differ from Table 16, are in bold for ease of identification.

Table 26: Conditional Conservatism Regressions by Legal Systems and Time Periods with GIIPS

Panel A: Basu $j=0$

	Code Law			GIIPS			Common Law		
	All	Pre	Post	All	Pre	Post	All	Pre	Post
<i>D</i>	-1.447***	-0.812	-0.802	0.255	0.605	0.105	-0.323***	-0.390***	-0.232*
<i>R</i>	-0.135	0.230	-0.198	0.152	0.198	0.018	-0.010	-0.084	0.121
<i>D*R</i>	1.490***	0.949*	0.694	-0.259	-0.554	-0.235	0.355***	0.385***	0.292***
<i>RuleofLaw</i>	-0.039	0.020	-0.051	-0.007	-0.046	0.014			
<i>RuleofLaw*D</i>	0.129***	0.053	0.078	-0.042	0.011	-0.103			
<i>RuleofLaw*R</i>	0.022	-0.017	0.031	-0.001	0.025	-0.015			
<i>RuleofLaw*D*R</i>	-0.129***	-0.067	-0.059	0.045	-0.003	-0.110			
<i>Anti-SelfDeal</i>	0.212	0.326	0.173	0.223*	0.572***	0.149	-0.045	-0.127*	0.107
<i>Anti-SelfDeal *D</i>	-0.327	-0.289	-0.320	0.129	-0.570*	0.389	0.105	0.104	0.070
<i>Anti-SelfDeal *R</i>	-0.085	-0.192	-0.057	-0.186*	-0.401***	-0.126	0.005	0.061	-0.096
<i>Anti-SelfDeal *D*R</i>	0.228	0.228	0.169	-0.260	0.417	-0.563*	-0.137	-0.110	-0.113
<i>CredRights</i>	0.010	0.009	0.015	0.007	0.051	-0.028			
<i>CredRights*D</i>	-0.017	0.007	-0.039**	0.051	-0.046	0.151			
<i>CredRights*R</i>	-0.007	-0.013	-0.008	-0.004	-0.037	0.020			
<i>CredRights*D*R</i>	0.015	-0.010	0.036*	-0.045	0.057	-0.149			
<i>Techno</i>	-0.008	-0.120***	0.021	0.026	0.017	0.021	0.019	-0.069*	0.069***
<i>Techno*D</i>	0.061**	0.208***	-0.004	0.082	0.175	0.086	0.043	0.140**	-0.014
<i>Techno*R</i>	-0.016	0.041	-0.028*	-0.016	0.010	-0.015	-0.029**	0.012	-0.058***
<i>Techno*D*R</i>	-0.063**	-0.175***	-0.001	-0.151**	-0.335	-0.129	-0.026	-0.094*	0.014
<i>UseEuro</i>	0.009	-0.001	0.023	-0.150***	-0.227***	-0.178	0.031	-0.067	0.111
<i>UseEuro*D</i>	0.111***	0.151***	-0.014	0.167***	0.208**	0.193	0.002	0.069	-0.052
<i>UseEuro*R</i>	-0.007	-0.009	-0.012	0.103***	0.150**	0.130	-0.040	0.047	-0.103
<i>UseEuro*D*R</i>	-0.146***	-0.193***	0.009	-0.154**	-0.194*	-0.128	-0.043	-0.068	0.003
<i>Post-IFRS</i>	-0.077***			0.077*			-0.003		
<i>Post-IFRS*D</i>	0.057**			-0.164**			-0.013		
<i>Post-IFRS*R</i>	0.023			-0.092***			0.006		
<i>Post-IFRS*D*R</i>	-0.035			0.132*			0.015		
N	13,682	5,180	8,502	4,349	1,479	2,870	11,608	5,236	6,372
R ²	0.298	0.306	0.315	0.304	0.355	0.323	0.360	0.335	0.395

Panel B: Basu $j=1$

	Code Law			GIPS			Common Law		
	All	Pre	Post	All	Pre	Post	All	Pre	Post
<i>D</i>	-1.662***	-1.117	-0.008	0.017	1.728**	-0.467	-0.657***	-0.652***	-0.435**
<i>R</i>	0.088	0.643*	-0.091	0.056	0.455***	-0.164	-0.095	-0.064	0.019
<i>D*R</i>	1.762**	1.689	-0.465	-0.061	-1.966**	0.358	0.656***	0.596***	0.533**
<i>RuleofLaw</i>	0.026	0.133	-0.025	-0.063	-0.027	-0.100**			
<i>RuleofLaw*D</i>	0.114	0.049	-0.028	-0.027	-0.167	0.016			
<i>RuleofLaw*R</i>	-0.007	-0.057	0.017	0.024	0.013	0.049			
<i>RuleofLaw*D*R</i>	-0.133	-0.127	0.082	0.039	0.234	-0.010			
<i>Anti-SelfDeal</i>	0.095	0.009	-0.115	0.275	0.643	0.532**	-0.153**	-0.225**	0.135
<i>Anti-SelfDeal *D</i>	0.148	0.270	0.166	0.203	-0.050	-0.112	0.217**	0.210	0.032
<i>Anti-SelfDeal *R</i>	0.090	-0.009	0.104	-0.238	-0.469	-0.389***	0.071	0.091	-0.040
<i>Anti-SelfDeal *D*R</i>	-0.102	0.086	-0.318	-0.320	-0.228	-0.049	-0.263**	-0.201	-0.144
<i>CredRights</i>	-0.005	-0.003	0.010	-0.044	-0.034	0.048			
<i>CredRights*D</i>	0.001	0.037	-0.034	0.033	0.061	0.056			
<i>CredRights*R</i>	-0.002	-0.020	-0.004	-0.029	0.019	-0.028			
<i>CredRights*D*R</i>	0.003	-0.025	0.026	-0.047	-0.065	-0.030			
<i>Techno</i>	-0.031	-0.266***	0.026	-0.001	-0.043	-0.011	-0.026	-0.089*	-0.030
<i>Techno*D</i>	0.077	0.387***	-0.026	-0.078	-0.418	-0.002	0.128***	0.225***	0.116***
<i>Techno*R</i>	-0.018	0.109***	-0.045***	0.007	0.042	-0.002	-0.025	-0.019	-0.013
<i>Techno*D*R</i>	-0.055	-0.290***	0.037	0.052	0.361	0.009	-0.110***	-0.226***	-0.086
<i>UseEuro</i>	0.024	0.008	0.006	-0.020	-0.215*		-0.096	0.068	0.047
<i>UseEuro*D</i>	0.158***	0.204***	-0.039	0.056	0.243		0.185*	0.154	0.053
<i>UseEuro*R</i>	-0.012	-0.001	-0.001	0.094*	0.218**		0.038	-0.038	-0.020
<i>UseEuro*D*R</i>	-0.201***	-0.248***	0.048	-0.082	-0.209		-0.211**	-0.084	-0.164
<i>Post-IFRS</i>	-0.201***			-0.194**			-0.039		
<i>Post-IFRS*D</i>	0.165***			0.068			0.026		
<i>Post-IFRS*R</i>	0.051**			-0.039			0.024		
<i>Post-IFRS*D*R</i>	-0.122**			-0.041			0.003		
<i>n</i>	11,720	3,927	7,793	3,820	1,194	2,629	9,920	4,188	5,732
<i>R</i> ²	0.357	0.376	0.374	0.393	0.494	0.354	0.406	0.422	0.420

Panel C: Basu j=2

	Code Law			GIPS			Common Law		
	All	Pre	Post	All	Pre	Post	All	Pre	Post
<i>D</i>	-2.335***	-1.288	-0.846	0.218	4.307**	-0.984**	-0.877***	-1.264***	0.090
<i>R</i>	-0.093	1.081**	-0.302	-0.066	0.523	-0.350**	-0.039	-0.095	0.297**
<i>D*R</i>	2.553***	2.000	0.933	-0.181	-5.023**	0.991**	0.902***	1.252***	-0.040
<i>RuleofLaw</i>	0.050	0.279**	-0.044	-0.079	0.097	-0.172***			
<i>RuleofLaw*D</i>	0.142	-0.049	0.071	-0.094	-0.663**	0.089			
<i>RuleofLaw*R</i>	0.012	-0.111*	0.045	0.031	-0.009	0.076**			
<i>RuleofLaw*D*R</i>	-0.184*	-0.060	-0.083	0.104	0.824**	-0.142			
<i>Anti-SelfDeal</i>	-0.011	-0.273	0.105	-0.128	-0.379	0.315	-0.247**	-0.435***	0.491*
<i>Anti-SelfDeal *D</i>	0.171	1.315	-0.380	0.723	1.949	-0.095	0.374*	0.623**	-0.511
<i>Anti-SelfDeal *R</i>	-0.050	0.147	-0.094	0.005	0.062	-0.225	0.091	0.169***	-0.256*
<i>Anti-SelfDeal *D*R</i>	0.136	-0.882	0.525	-0.870	-2.766*	0.286	-0.56	-0.599**	0.545
<i>CredRights</i>	-0.024	-0.056	0.007	0.074	0.095	0.092			

<i>CredRights*D</i>	0.020	0.117	-0.038	0.044	0.155	-0.088			
<i>CredRights*R</i>	0.001	-0.002	-0.006	-0.047	-0.055	-0.053			
<i>CredRights*D*R</i>	-0.006	-0.087	-0.035	-0.084	-0.435	0.183			
<i>Techno</i>	-0.023	-0.222***	0.021	-0.052	-0.259	0.015	0.039	-0.179	0.104***
<i>Techno*D</i>	-0.022	0.339***	-0.109	-0.013	-1.348***	0.033	0.043	0.313	-0.036
<i>Techno*R</i>	-0.035**	0.070	-0.055***	0.040	0.164***	-0.014	-0.082***	-0.022	-0.100***
<i>Techno*D*R</i>	0.079	-0.316***	0.186**	0.059	2.097***	-0.054	-0.123**	-0.341**	-0.065
<i>UseEuro</i>	0.048	0.109*	-0.035	0.095	0.085		-0.185**	-0.211	0.293
<i>UseEuro*D</i>	0.113	0.113	0.017	-0.029	0.094		0.313**	0.483***	-0.274
<i>UseEuro*R</i>	-0.001	-0.010	0.023	0.078	0.107		0.077	0.108*	-0.161*
<i>UseEuro*D*R</i>	-0.181	-0.219	-0.065	-0.154	-0.369		-0.304*	-0.424**	0.196
<i>Post-IFRS</i>	-0.358***			-0.419***			-0.021		
<i>Post-IFRS*D</i>	0.418***			0.213			0.068		
<i>Post-IFRS*R</i>	0.084***			-0.006			0.008		
<i>Post-IFRS*D*R</i>	-0.366***			-0.225			-0.050		
n	10,177	3,033	7,144	3,321	934	2,387	8,465	3,361	5,104
R ²	0.417	0.468	0.421	0.501	0.623	0.427	0.445	0.512	0.437

The dependent variable is $E_{t,t-j}/P_{t,t-j-1}$ is income before extraordinary items cumulated from year $t-j$ to year t . $P_{t,t-j-1}$ is the market value of equity at the end of year t . $D_{t,t-j}$ is a dummy variable equal to one if the return, $R_{t,t-j}$ is less than one. $R_{t,t-j}$ is the buy and hold return starting 4 months after the end of the fiscal year $t-j-1$ and ending 4 months after the end of year t . *RuleofLaw* = scale of 0 to 10 and is a monthly average from 1982 to 1995 of the tradition of law and order from the International Country Risk Guide. *Anti-SelfDeal* = a measure of shareholders rights on a scale from 0 to 1 where a score of 1 represents a higher level of shareholder rights (Djankov, 2008). *CredRights* = an index that ranges from 0 to 4 from company law or bankruptcy laws from La Porta et al. (1997) where 1 is added when one of 4 dimensions of creditor rights is fulfilled in the company or bankruptcy laws of a country. *UseEuro* = an indicator variable equal to one if a firm's financial statements are reported in Euros. This is to control for any confounding events that are linked to a common currency. There is not enough variation in *UseEuro* when $j=1$ or $j=2$ for firms in GIPS countries. Therefore, *UseEuro* is excluded for those regressions. Regressions are run with the following control variables: *Size*, *Sales*, *Cfo_ta*, and *Leverage* and their respective interaction variables with *D*, *R*, and the three-way interaction with *D*R*. Code or common law countries are defined by La Porta et al. (1997, 1998) except for the Netherlands which is classified as common law. Countries known as the GIPS (Portugal, Italy, Greece, and Spain, are tested separately in their own group and are not included in the code law countries. The common law countries use only rule of law and creditor rights because there is not enough variation between the three countries to use all 3 institutional variables. Significance of less than 0.10 is denoted by *, significance of less than 0.05 is denoted as **, and significance of less than 0.01 is denoted by ***. All variables are converted to British Pounds and are Winsorized at the top and bottom 5%. All *Pre-IFRS* coefficients that differ from Table 17, are in bold for ease of identification.

Table 26 on the prior pages shows differences based on the new country classification. The code law columns are the same as prior to IFRS since this sample does not change. The GIIPS columns have many changes compared to the original regression results in Table 17. The institutional variables have a lot of changes. One explanation for this is that GIPS had the smallest sample size, so adding the Ireland observations creates much more of a statistical change. When $j=0$, the sample size for GIPS in Table 17 is 4,084 while GIIPS in Table 26 is 4,349. The increase to the sample size is 6.49%. The sample size for common law observations in Table 17 is 11,873 and 11,608 in Table 26 which represents a decrease in sample size of 2.23%. This may help explain why there are more institutional variables change for GIIPS than for common law observations. There are no changes for the *Post-IFRS* variable for any of the common law regressions. There are minor changes for the GIIPS where the magnitude of the effect changes, but there are no sign changes. The *Post-IFRS* variables that change in interpretation have been bolded in the table.

Overall, Ireland is a small percentage of the total sample. Recategorizing them from common law to GIIPS only affects 265 firm-year observations. Therefore, the results are robust to using GIPS or GIIPS. There are some small changes in the level of significance where something may lower significance from 0.01 to 0.05. There are no sign changes when the interpretation changes for any country-type indicator of IFRS dummy variable. There are no situations where a coefficient goes from increasing conservatism with GIPS to decreasing conservatism if the definition is changed to GIIPS.

Chapter 7

Conclusion

A sample of firm-year observations from 14 EU countries (Austria, Belgium, Denmark, Finland, France, Germany, Great Britain, Greece, Ireland, Italy, the Netherlands, Portugal, Spain and Sweden) is used to examine how unconditional and conditional conservatism change in the European Union with the implementation of IFRS. I begin by laying out the historical context to help describe the environment in place for a unified accounting standard to exist. I then discuss unconditional and conditional accounting conservatism as well as the institutional and other factors that drive reported accounting conservatism behavior. Models by Ahmed and Duellman (2007) are used to test the hypotheses.

There are some unique methodological contributions of this paper. First, the Netherlands is classified as a common law country instead of a code law country. Numerous other studies are cited where the observed reporting behavior of the Netherlands is more on par with that of common law instead of code law behaviors. It makes more empirical sense to classify countries based on real world, observable behavior. Secondly, GIPS (Greece, Italy, Portugal, and Spain) are examined as a distinct group due to historical context and unique characteristics that differentiate them from the rest of the countries in the study and differentiate them from other French legal code law tradition countries like Belgium and France. Third, I exclude years that could interfere with determining the true effect of IFRS (and later the MAD Directive), in this case, firm-year observations from 2002-2004. These years are excluded because during that time period, firms knew they had to change their behavior for their 2005 financial statements. That time period represents a time period of transition and any observed results in that time may be due to conservative accounting behavior of that time period, but also may be due to firms already beginning to change their behavior for the upcoming required switch to IFRS. The clearest way to ascertain if IFRS is responsible for a given behavior is to remove the confounding factor of

transitional years. Fourth, I separate out the effects of IFRS from the Market Abuse Directive (MAD) to determine the effect on observable reporting behavior.

Using an EU sample is a strength and a limitation of this paper. Since the EU is a more homogenous zone, more country-level characteristics are held constant since these countries are similar in many ways. Most of the countries use the Euro and therefore, each country does not have its own centralized bank that conducts open market operations specific to their country only. All the countries are similar in terms of development, at least more so than a study that uses IFRS adopters all over the world in vastly different jurisdictions. Since the EU is a trade zone with low barriers of trade between members, globalization is more similar between members in this sample. These things give more confidence that the observed behavior is driven by the switch to IFRS and not some regional externality that doesn't affect all the countries in the sample. This is also a limitation of the paper since the results may not be generalizable to accounting behavior outside of the EU zone. In addition, while these results hold for accounting conservatism, they might not hold for other accounting topics like earnings management, or cost of capital. This paper centers on if there are observable changes in reporting behavior. Future research should center on identifying and testing what drives the observable changes that were found in this study. Possible topics include: What are the mechanisms that create different observable changes in different countries? Why does an institution like Rule of Law (or Creditor Rights) matter for some types of countries but not others? How do the institutional characteristics work together for the observed outcome – for example, does Rule of Law have the same magnitude of an effect in all country-types or does Rule of Law matter more for some countries while Creditor Rights matters more for other countries to drive the observed behavior? How does the legal environment combine with the institutions of a country to affect the results? Why does the MAD Directive increase a behavior in one type of country but decrease it in another country? Future research should center on not just the

observable behavior but finding the reasons motivating that behavior to better understand how accounting changes will affect observed reporting behavior to elicit a specific outcome.

Overall, I find that differences exist prior to the announcement and implementation of IFRS in regards to unconditional and conditional conservatism across the three country-classifications (code law, GIPS, and common law). I use four different measures of unconditional conservatism and three different cumulation periods for conditional conservatism. IFRS as a net effect appears to dampen the differences in the observed reporting behavior. Differences that were great became smaller, and small differences were eliminated. Part of this change in behavior can be attributed to the adoption of IFRS across the EU. However, that is not the only reason for the observed results. Reporting is more complicated than just an accounting standard change. It acts in conjunction with the MAD Directive as an enforcement mechanism. The change attributed to IFRS and the change attributed to the MAD Directive is not as straight forward as simple indicator variables might indicate. Different countries respond differently to those two effects for a variety of reasons, most likely differences in key stakeholders that affect different levels of information asymmetry within a reporting environment. The strength of different institutions may also affect this outcome. Overall, my findings are consistent with IFRS as a means to reduce differences in accounting behavior even if it cannot fully eliminate differences between countries.

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Appendix A

Appendix A: Country-Level Indicators

Panel A: Country-Level Indicators for Code Law Countries

<i>Indicator</i>	Time Period	Austria	Belgium	Denmark	Finland	France	Germany	Sweden	Average
Labor Force Participation	1996-2001	58.15	50.98	65.78	60.97	55.15	58.40	62.50	58.85
	2002-2004	58.73	51.93	65.90	61.23	55.73	57.70	62.93	59.17
	2005-2010	60.21	53.62	65.77	61.12	56.23	59.22	63.88	60.01
	1996-2010	59.09	52.23	65.80	61.08	55.70	58.59	63.14	59.38
Long-Term Unemployment	1996-2001	26.83	58.67	23.75	27.47	38.98	49.77	29.3	36.40
	2002-2004	23.77	47.63	20.2	22.77	36.60	49.13	18.97	31.30
	2005-2010	25.02	48.87	17.25	21.33	38.88	51.30	12.93	31.92
	1996-2010	25.49	52.54	20.44	24.07	38.47	50.25	21.88	33.58
Cost of Business Start-Up	2003-2004	6.05	11.20	0.00	1.15	1.20	5.90	0.70	3.74
	2005-2010	5.35	6.35	0.00	1.05	1.03	5.10	0.63	2.79
	2003-2010	5.53	7.56	0.00	1.08	1.08	5.30	0.65	4.325
Disclosure	2005-2010	5.00	8.00	7.00	6.00	10.00	5.00	5.67	6.67
GDP Growth	1996-2001	2.77	2.52	2.50	4.39	2.57	1.81	3.15	2.81
	2002-2004	1.72	1.18	1.05	2.66	1.46	0.27	3.02	1.71
	2005-2010	1.58	1.32	0.43	1.29	0.85	1.29	1.95	1.24
	1996-2010	2.08	1.90	1.38	2.80	1.66	1.29	2.64	1.97
Annual Inflation	1996-2001	0.66	1.24	2.06	1.93	1.20	0.36	1.26	1.24
	2002-2004	1.36	2.04	2.09	0.36	1.96	1.20	1.20	1.46
	2005-2010	1.80	2.08	2.72	1.52	1.81	0.91	1.94	1.82
	1996-2010	1.26	1.74	2.33	1.45	1.59	0.74	1.52	1.52
Trade	1996-2001	83.38	140.11	78.30	71.14	51.22	58.32	79.81	80.33
	2002-2004	94.93	145.69	86.22	71.87	52.10	68.81	81.98	85.94
	2005-2010	105.97	156.97	98.17	82.41	53.60	84.74	93.66	96.50
	1996-2010	94.73	147.97	87.83	75.79	52.35	70.99	85.78	87.92
Government Debt	1996-2001	63.72	113.26	61.31	69.03	62.88	39.11	77.23	69.51
	2002-2004	67.47	96.01	47.73	48.93	69.81	41.11	53.53	60.51
	2005-2010	67.30	86.63	34.91	41.44	76.02	45.89	43.87	56.58
	1996-2010	65.90	99.16	48.03	54.98	69.32	42.22	59.15	62.54
Gross Domestic Savings	1996-2001	25.30	24.89	25.20	28.06	20.26	22.62	24.19	24.36
	2002-2004	26.69	25.16	25.79	27.04	19.70	22.34	39.36	24.44
	2005-2010	27.14	24.86	24.33	24.33	18.93	23.75	25.84	24.17
	1996-2010	26.31	24.93	24.97	26.36	19.62	23.01	24.90	24.30
Market Capitalization	1996-2001	15.26	69.47	55.61	148.31	75.11	51.26	114.60	75.66
	2002-2004	22.23	60.56	54.40	101.19	72.70	40.92	89.21	63.03

	2005-2010	35.003	67.55	69.14	88.28	83.48	46.23	111.52	71.60
	1996-2010	24.55	66.92	60.78	114.87	77.97	47.18	108.29	71.51
Stocks Traded	1996-2001	6.17	16.71	37.32	82.33	50.41	43.62	96.92	47.64
	2002-2004	5.08	16.40	33.66	115.78	64.94	53.45	94.93	54.85
	2005-2010	19.43	37.16	59.49	126.16	89.98	69.69	137.92	77.12
	1996-2010	11.25	24.83	45.46	106.49	69.14	56.01	112.92	60.87

Panel B: Country-Level Indicators for Common Law Countries

Indicator	Time Period	Ireland	The Netherlands	United Kingdom	Average
Labor Force Participation	1996-2001	57.13	61.47	61.55	60.05
	2002-2004	59.87	64.27	61.80	61.98
	2005-2010	62.07	65.45	62.10	63.21
	1996-2010	59.65	63.62	61.82	61.70
Long-Term Unemployment	1996-2001	48.78	42.75	32.70	38.10
	2002-2004	32.17	26.70	21.20	26.69
	2005-2010	33.10	34.25	24.65	30.67
	1996-2010	37.71	35.12	27.18	32.84
Cost of Business Start-Up	2003-2004	10.35	13.25	0.95	8.18
	2005-2010	1.15	7.23	0.73	3.04
	2003-2010	3.45	8.74	0.79	4.33
Disclosure	2005-2010	10	3	10	7.67
GDP Growth	1996-2001	5.30	3.69	3.46	3.74
	2002-2004	4.63	0.88	3.05	2.85
	2005-2010	1.40	1.52	0.98	1.30
	1996-2010	2.76	2.26	2.39	2.59
Annual Inflation	1996-2001	5.63	2.81	1.92	2.49
	2002-2004	3.69	2.25	2.44	2.79
	2005-2010	-0.56	1.56	2.44	1.14
	1996-2010	1.33	2.19	2.23	2.01
Trade	1996-2001	163.26	123.44	56.13	114.28
	2002-2004	157.51	122.31	54.33	111.39
	2005-2010	159.84	138.58	59.73	119.38
	1996-2010	160.75	129.27	57.21	115.74
Government Debt	1996-2001	47.32	60.70	48.01	53.44
	2002-2004	34.09	50.87	42.21	42.39
	2005-2010	49.48	52.70	59.35	53.85
	1996-2010	45.26	55.53	51.39	51.39
Gross Domestic Savings	1996-2001	35.59	27.38	16.74	26.57
	2002-2004	39.36	26.05	24.44	26.62
	2005-2010	34.05	27.38	14.18	25.20

	1996-2010	35.73	27.11	15.26	26.03
Market Capitalization	1996-2001	68.28	135.22	161.16	121.55
	2002-2004	54.57	90.26	125.72	90.18
	2005-2010	43.48	88.03	126.69	86.06
	1996-2010	55.62	107.35	140.28	101.08
Stocks Traded	1996-2001	28.86	134.90	88.38	84.05
	2002-2004	26.05	108.86	135.72	90.21
	2005-2010	25.21	134.44	208.97	122.87
	1996-2010	26.84	129.51	146.08	100.81

Panel C: Country-Level Indicators for GIPS Countries

		Greece	Italy	Portugal	Spain	Average
Labor Force Participation	1996-2001	52.07	47.53	60.48	51.87	52.99
	2002-2004	52.77	48.87	61.83	54.47	54.48
	2005-2010	53.93	48.78	62.25	58.25	55.80
	1996-2010	52.95	48.30	61.46	54.94	54.41
Long-Term Unemployment	1996-2001	55.12	62.32	44.77	46.63	52.21
	2002-2004	53.10	54.77	37.87	33.10	44.71
	2005-2010	48.28	46.80	48.03	24.13	41.81
	1996-2010	51.98	54.60	44.69	34.93	46.55
Cost of Business Start-Up	2003-2004	32.60	21.75	12.75	16.90	21.00
	2005-2010	21.37	19.05	7.95	15.47	15.96
	2003-2010	24.18	19.73	9.15	15.83	17.22
Disclosure	2005-2010	1	7	6	5	4.75
GDP Growth	1996-2001	3.58	1.90	3.87	4.04	3.35
	2002-2004	4.58	0.71	0.47	3.02	2.20
	2005-2010	0.51	-0.02	0.60	1.33	0.60
	1996-2010	2.55	0.90	1.88	2.75	2.02
Annual Inflation	1996-2001	4.81	2.77	3.36	3.09	3.51
	2002-2004	3.42	2.91	3.07	4.19	3.40
	2005-2010	2.78	1.82	1.88	2.44	2.23
	1996-2010	3.72	2.42	2.71	3.05	2.97
Trade	1996-2001	55.20	48.30	65.02	54.67	55.80
	2002-2004	56.06	49.33	63.32	55.89	56.15
	2005-2010	56.95	54.45	69.39	56.86	59.41
	1996-2010	56.07	50.96	66.43	55.79	57.31
Government Debt	1996-2001	115.58	124.53	59.90	59.72	91.65
	2002-2004	127.08	112.21	65.20	49.51	88.50
	2005-2010	127.81	111.68	78.63	38.66	89.20
	1996-2010	122.77	116.93	69.07	49.26	90.04

Gross Domestic Savings	1996-2001	11.46	22.72	17.88	23.11	18.79
	2002-2004	12.74	21.79	16.60	24.62	18.94
	2005-2010	10.47	20.15	13.61	23.19	16.86
	1996-2010	11.32	21.51	15.92	23.45	18.05
Market Capitalization	1996-2001	68.51	45.41	41.35	65.05	55.08
	2002-2004	52.47	41.77	35.42	79.99	52.41
	2005-2010	49.18	33.85	41.51	91.69	54.06
	1996-2010	57.57	40.06	40.23	78.70	54.14
Stocks Traded	1996-2001	50.53	37.92	27.33	110.64	56.61
	2002-2004	18.71	44.73	16.37	122.64	50.61
	2005-2010	27.14	53.55	30.82	143.49	63.75
	1996-2010	34.81	45.54	26.53	126.18	58.26

All data and descriptions come directly from the World Bank Indicators 27.(<http://data.worldbank.org/indicator>). *Labor Force Participation* is a rate that represents the proportion of the population ages 15 and older that is economically active: all people who supply labor for the production of goods and services during a specified period. *Long-Term Unemployment* refers to the number of people with continuous periods of unemployment extending for a year or longer, expressed as a percentage of the total unemployed. *Cost of Business Start-up* is the cost to register a business is normalized by presenting it as a percentage of gross national income (GNI) per capita. Data for this indicator is available from 2003 onward. *Disclosure* is an index that measures the extent to which investors are protected through disclosure of ownership and financial information. The index ranges from 0 to 10, with higher values indicating more disclosure. Data is only available from 2005 onwards. *GDP Growth* is the annual percentage growth rate of GDP at market prices based on constant local currency. Aggregates are based on constant 2000 U.S. dollars. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. *Annual Inflation* is measured by the annual growth rate of the GDP implicit deflator shows the rate of price change in the economy as a whole. The GDP implicit deflator is the ratio of GDP in current local currency to GDP in constant local currency. *Trade* is the sum of exports and imports of goods and services measured as a share of gross domestic product. *Government Debt* is the entire stock of direct government fixed-term contractual obligations to others outstanding on a particular date. It includes domestic and foreign liabilities such as currency and money deposits, securities other than shares, and loans. It is the gross amount of government liabilities reduced by the amount of equity and financial derivatives held by the government. Because debt is a stock rather than a flow, it is measured as of a given date, usually the last day of the fiscal year. *Gross Domestic Savings* are calculated as GDP less final consumption expenditure (total consumption). *Market Capitalization* is the share price times the number of shares outstanding. Listed domestic companies are the domestically incorporated companies listed on the country's stock exchanges at the end of the year. Listed companies does not include investment companies, mutual funds, or other collective investment vehicles. *Stocks Traded* refers to the total value of shares traded during the period as a percentage of GDP. This indicator complements the market capitalization ratio by showing whether market size is matched by trading

Vita

Elizabeth Devos was born in Minot, N.D. and was raised in Skokie, IL. She received her high school diploma in 1993 from Bradley-Bourbonnais Community High School and then attended college at North Central College in Naperville, IL where she graduated with honors and received a B.S. in Economics in 1997. Elizabeth worked various managerial jobs in Binghamton, NY and received a M.A. in Applied Economics at The State University of New York at Binghamton in 2002. Elizabeth was a teacher's assistant while she received her master's degree. She moved to Athens, Ohio in 2003 and celebrated the birth of her twins, Elden and Enthony, in 2004. Elizabeth moved to El Paso, TX in 2007 and was a stay-at-home mom while her children were young. She re-entered academics in 2008 when she enrolled in the Ph.D. program at The University of Texas at El Paso in 2008.

Elizabeth was a tutor for Intermediate Accounting and Financial Accounting Principles her first semester in the Ph.D. program, She taught Managerial Accounting and Quantitative Methods her next two semesters. She taught Managerial Accounting for the remainder of her time at The University of Texas at El Paso. Elizabeth began an assistant professor position at Eastern Michigan University in Ypsilanti, MI in 2013. She has presented papers at the American Accounting Association's national meetings for both the Financial and International sections. She has also presented at the mid-year International Sectional meeting. She was an invited attendee at the International Sectional Doctoral Consortium twice while in her Ph.D. program. She has also attended the Contemporary Accounting Review Conference in Canada.

She is a member of the American Accounting Association and lives in Saline, MI with her sons Elden and Enthony and their three cats.

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