Cross-border portfolio flows and news media coverage ☆

Guglielmo Maria Caporale [a,*], Faek Menla Ali [b], Fabio Spagnolo [a,d], Nicola Spagnolo [a,c,e]

[a] Department of Economics and Finance, Brunel University London, UK
[b] Business School, University of Sussex, UK
[c] Centre for Applied Macroeconomic Analysis (CAMA), National Australian University, Australia
[d] Department of Economics, University of Messina, Italy
[e] Universita' degli Studi della Campania "Luigi Vanvitelli", Italy

ARTICLE INFO

ABSTRACT

This paper investigates the dynamic linkages between portfolio flows and various news media indices (based on both "positive" and "negative" news headlines collected from Bloomberg), whilst also controlling for a comprehensive set of push and pull factors. The monthly panel examined comprises 49 developed, emerging and developing economies in addition to the US and covers the period from January 2007 to October 2017. The empirical results document the importance of the news variables as a determinant of cross-border portfolio flows. More specifically, US (worldwide) news appear to play a leading role in driving bond inflows into (outflows from) the US. By contrast, the impact of news on equity inflows towards the US is relatively weak, whilst equity outflows from the US are affected by both US and worldwide news. These results are shown to be relatively robust to dropping from the full sample the six financial centres considered.
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1. Introduction

Cross-border (equity and bond) portfolio flows have increased sharply in recent years. Whilst they amounted to only 4% of GDP in 1975, they had risen to 100% by the 1990s and reached 245% by the beginning of the current millennium (see Hau and Rey, 2006; IMF, 2012; Sarno et al., 2016). Their decline following the global financial crisis of 2007–08 was only short-lived, and soon they reverted to their upward trend (see Milesi-Ferretti and Tille, 2011), stimulating economic growth in the post-crisis period. However, their increasing volatility with its adverse effects on the world economy has raised concerns that international organisations and central banks have tried to address. In particular, following the global financial crisis, the IMF introduced "capital-flow management" measures to reduce volatility, and more recently the Bank of England has developed a "Capital Flows-at-Risk" framework for capital outflows in the case of a severe, low-probability event with the aim of assessing policy options.

The existing literature has identified a variety of push (global or common) and pull (country- specific) factors as possible determinants of portfolio flows. The former drive capital from the US, the main hub for international portfolio investment, to the rest of the world, and include low US interest rates and industrial growth, low global risk aversion, etc. The latter, on the other hand, pull capital into an economy, and include high domestic interest rates and economic growth, low domestic infla-

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tion, better quality of institutions, low political risk, etc. As Mark Carney, the Governor of the Bank of England, puts it, "push factors determine global risk appetite and financial conditions, particularly the level and prospects for US monetary policy and financial stability, whereas pull factors are reflected in domestic conditions and institutions that affect the relative attractiveness of investing in an individual country".[1]

Surprisingly, the impact of social media and newspaper coverage on cross-border portfolio flows dynamics has not been given much attention, despite the evidence suggesting that both affect financial markets significantly (see, e.g., Engelberg and Parsons, 2011; Dougal et al., 2012; Peress, 2014, among others). In fact, there is now an extensive literature showing that indicators obtained from social media platforms and newspapers coverage data convey valuable information that can be used for predicting asset prices and trading behaviour. For example, Antweiler and Frank (2004) extracted a disagreement indicator from Internet message boards and found that disagreement among messages increases trading volumes. Sprenger et al. (2014b) used stock-related messages (from the so-called StockTwits) and detected linkages between tweet sentiment and stock returns, message volume and trading volume, and disagreement and volatility. More recently, Yuan (2015) provided evidence that market-wide attention-grabbing events (such as record levels for stock indices and front-page market news) are useful predictors of trading behaviour and returns.

The present paper aims to fill this gap in the literature by investigating the role of news media coverage as a determinant of cross-border (equity and bond) portfolio flows between the US and 49 developed, emerging and developing economies over the period from January 2007 to October 2017. We extend the work of Fraiberger et al. (2018), who use data on equity flows covering a smaller group of 16 emerging markets between 2005 and 2015 to estimate the (cumulative) response of asset prices to daily sentiment shocks applying Jorda's (2005) local projection method, both for individual and panel regressions. They find that local news optimism generates inflows for a few days only, whilst global sentiment optimism results in permanent inflows; further, the response of local and foreign equity funds is not the same. Following Forbes and Warnock (2012) and other recent related work, our analysis focuses on gross capital inflows and outflows, and distinguishes between foreign and domestic investors, since these two categories may react differently to news and other shocks. We obtain news from Bloomberg News, which includes extensive news media coverage of the economic and business outlook, the stock market, corporate bonds, and unemployment for each country in our sample over the period from January 2007 to October 2017 (for a total of 6,165,103 news stories); these are classified as "positive" or "negative" on the basis of an algorithm developed by Bloomberg. Various news media sentiment indicators are then calculated (specifically, news pessimism, news intensity, changes in news pessimism and intensity, news (average) sentiment and news disagreement) and used to analyze the impact of news media coverage on cross-border portfolio flows. Besides, the estimated model includes an extensive set of push (global or common) and pull (country-specific) factors. In brief, the results provide extensive evidence that portfolio flows are driven by news media coverage in addition to other well-known economic factors.

Our study contributes to various strands of the literature. First, it sheds further light on the possible determinants of portfolio flows in addition to the push and pull factors previously considered (see, e.g. Chuhan et al., 1998; Portes and Rey, 2005; Fratzscher, 2012; Sarno et al., 2016, among others). In particular, early papers had focused on expected return chasing and momentum investing (Bohn and Tesar, 1996). Later work found evidence for the impact of financial liberalisation in emerging market economies on capital inflows towards them (see, e.g., Bekaert et al., 2002; Edison and Warnock, 2008). More recently, the literature has focused on the role of "capital-flow management" measures to address the negative effects of large and volatile capital flows (see, e.g., IMF, 2013; Forbes et al., 2015), and also on the impact of unconventional monetary policy in the developed world on capital flows dynamics (see, e.g., Lim and Mohapatra, 2016; Fratzscher et al., 2018).

It is also linked to the literature on the existence of a home bias in portfolio investment, despite the potential gains from international diversification (see, e.g., Uppal, 1992; Tesar and Werner, 1995, among others). Early explanations relied on (i) investors' desire to hedge domestic inflation, (ii) the role of institutional barriers in foreign investment, and (iii) the role of transaction costs and associated taxes on income from foreign investment (see Uppal, 1992, for an overview). Other factors considered more recently include information endowments (Brennan and Cao, 1997), information immobility (Nieuwerburgh and Veldkamp, 2009), stock market development and familiarity (Chan et al., 2005), cultural influences (Anderson et al., 2011), and exchange rate volatility (Fidora et al., 2007; Caporale et al., 2015), etc. In addition, Levy and Levy (2014) attributed the persistence of the home bias to the increasing correlations between financial markets. These could result from news sentiment spillovers across different industries and countries (see, e.g., Audrino and Tetereva, 2019), which might affect investors' appetite for home versus foreign assets, especially during turbulent periods.

Finally, the present study is also related to the rapidly growing literature on the role of news media and social media big data in financial markets (see Bukovina, 2016, for a comprehensive overview). This analyses the effects of sentiment indicators that are extracted from Internet message boards (Antweiler and Frank, 2004), news media articles (see, e.g., Fang and Peress, 2009; Tetlock, 2007; Yuan, 2015, among others), Twitter posts (see, e.g., Sprenger et al., 2014a,b, Al-Nasseri and Menla Ali, 2018), and Internet search data (see, e.g., McLaren and Shanbhogue, 2011; Saxa, 2014, among others). Most of these studies use firm level data, whilst so far relatively little work has been carried out on financial market dynamics at country level. A few exceptions are Beetsma et al. (2013, 2017) and Caporale et al. (2016, 2017a,b, 2018a,b).

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[1] See "Pull, Push, Pipes: Sustainable Capital Flows for a New World Order", speech given by Mark Carney, the Governor of the Bank of England, at the Institute of International Finance Spring Membership Meeting, Tokyo (6th June 2019).

The layout of the paper is the following. Section 2 provides a review of the relevant literature on the determinants of cross-border portfolio flows and the impact of news on financial markets; Section 3 describes the data and provides some descriptive statistics; Section 4 outlines the empirical framework and discusses the empirical results; Section 5 offers some concluding remarks.

2. Literature review

Numerous studies have analysed the possible drivers of international portfolio flows. The early literature focused on various economic factors that might play a role. For instance, Brennan and Cao (1997) developed a theoretical framework to explain flows on the basis of differences in informational endowments between foreign and domestic investors; their empirical results are consistent with the presence of asymmetric information, specifically the finding that US equity purchases are positively associated with foreign market returns suggests that US investors are at an informational disadvantage relative to local ones. In a seminal study, Bohn and Tesar (1996) addressed the issue of whether US investors purchase foreign equities to maintain constant portfolio weights (the "portfolio-rebalancing" effect) or adjust them on the basis of their expectations of excess returns (the "return-chasing" effect); they concluded that agents mainly chase returns, but this strategy yields a lower mean return than one based on holding a market-weighted portfolio of foreign equities. Froot et al. (2001) provided wider empirical evidence on the relationship between flows and equity returns in a sample of 44 countries; in particular, they reported that regional factors have become increasingly important and that flows are persistent, are affected by past returns and have forecasting power; further, foreign flows have a positive impact on local stock prices and a negative one on future returns.

The effects on portfolio flows of financial liberalisation and the removal of capital controls in the 1990s in many emerging market economies were analysed in various studies. For example, the liberalisation of equity emerging markets was shown to have produced structural breaks in the linkages between capital flows, returns, dividend yields and global interest rates in a study by Bekaert et al. (2002); their VAR analysis indicates that liberalisation leads to an initial increase in equity flows followed by a decrease over time; further, there is a "push" effect from global interest rates, shocks to equity flows have a positive impact on returns that declines over time, and there is empirical support for return chasing. Edison and Warnock (2008) analysed the effect of both deterministic cross-border listing and uncertain reductions in capital controls on equity inflows to emerging Asia and Latin American countries, and found that the former led to an immediate but short-lived increase in inflows whilst the latter resulted in increased inflows only over a longer horizon. The effects of the imposition of capital controls were instead analysed by Boero et al. (2019), who estimated a Global VAR (GVAR) and found that they are generally temporary and do not produce significant externalities since there is little evidence of an impact on third-party countries.

Various empirical studies have argued that capital flows are primarily driven by a variety of push (global or common) and pull (country-specific) factors. Chuhan et al. (1998) used a panel approach to examine monthly capital flows between the US, nine Latin American and nine Asian countries and found that both global factors (such as US interest rates and industrial production) and country- specific ones (such as credit rating and debt price) play a role, with bond flows being more responsive than equity flows to the latter. Portes and Rey (2005) analysed a panel dataset for 14 countries and showed that a "gravity" model is as suitable for equity flows as for traded goods, i.e. there is a geographical pattern in international asset transactions; their results suggest that the existence of a "home bias" might be attributable to informational asymmetries. De Santis and Luhrmann (2009) reported evidence from pooled OLS and random effects models with time dummies showing, in a large panel of countries, the importance for capital flows of other factors already known to affect current account balances, namely population ageing, institutions, money and deviations from Uncovered Interest Parity (UIP). The role of liquidity was examined by estimating VAR models by Vagias and van Dijk (2011), who found differences between regions (America, Europe and Asia/Pacific) in terms of the responses of capital flows to local and US liquidity, and also a stronger interaction between flows and liquidity in the case of small cap stocks compared to large cap ones. Fratzscher (2012) estimated instead a factor model for high-frequency portfolio flows in 50 countries; his analysis implies that "push" (common) factors such as global liquidity and risk had substantial effects on flows, andthese changed as a result of the global financial crisis, with flows being reallocated from emerging to developed economies during the crisis, consistently with a "flight-to-safety" mechanism; however, country-specific factors were also important since they resulted in heterogeneous responses to common shocks. Sarno et al. (2016) also concluded that "push" factors explain most of the variation in equity and bond flows by using a Bayesian dynamic latent factor model.

Forbes et al. (2015) assessed the effectiveness of the "capital-flow management" measures introduced by the IMF to address the negative effects of large and volatile capital flows by analysing data for 60 countries over the period from 2009 to 2011. They found that most of these measures do not significantly affect capital flows, although removing capital controls on outflows may reduce real exchange rate appreciation. More recently, the impact of the unconventional monetary policy in the US on capital flows dynamics has also drawn considerable attention. Lim and Mohapatra (2016) detected significant effects of quantitative easing (QE) in the US on financial flows to developing countries; in addition to the observable ones, latent ones associated to QE were also identified as a possible explanation for the increase in inflows during the QE period. Fratzscher et al. (2018) analysed the effects of the Fed's QE both on high-frequency portfolio flows in the US and in 52 other countries, and showed that the first episode of QE triggered portfolio inflows into the US, whereas the second and the third episodes generated inflows into the emerging market economies.

All the studies reviewed above overlook the possible role of news in determining cross-border portfolio flows, notwithstanding the substantial body of evidence showing the significant impact of news on financial markets. An interesting debate in the literature concerns the nature of the media effects, i.e. whether these increase investors' biases and irrational behaviour by making them overreact in the short term (see, e.g., Shiller, 2000), or instead increase market efficiency by disseminating information (see, e.g., Peress, 2014). In a seminal paper, Tetlock (2007) found that high media pessimism (generated by bad news) generates downward pressure on market prices followed by reversals, and unusually high or low media pessimism predicts high trading volumes; his empirical findings suggest that indicators extracted from media content are a good proxy for investor sentiment. In order to distinguish between the effects of media reporting and those of the events being covered Engelberg and Parsons (2011) compared the responses of investors with access to different media coverage of the same events depending on their geographical location in the US; their evidence suggests that there is a significant causal impact of media on financial markets, since the local market reaction to earnings announcements of the S&P 500 firms depends on local reporting and varies across regions.

Beetsma et al. (2013) constructed news indicators based on the amount of news released in a given country on a given date and examined bond yield spillovers in Europe during the recent sovereign debt crisis; they found a positive impact of the news on interest rates in the GIIPS (Greece, Ireland, Italy, Portugal and Spain), and significant spillovers between these countries, and also between GIIPS and non-GIIPS. Beetsma et al. (2017) further analysed the dependence structure of variances and covariances of eurozone bond yields and found that more news increase the volatility of yields of financially distressed countries and decrease their covariance with German bond yields, both effects being attenuated by the ECB's Securities Market Programme (SMP). Apergis (2015) documented the usefulness of news-wire messaging for forecasting CDS spreads. Caporale et al. (2016, 2017a,b, 2018a,b) estimated multivariate GARCH models to investigate the impact of macro news headlines on variables such as stocks, bonds, exchange rates and commodity prices and provided evidence on both mean and volatility spillovers as well as the asymmetric impact of positive and negative headlines. Market-wide attention-grabbing events (such as record levels for stock indices and front-page market news) were shown to be useful predictors of trading behaviour and returns by Yuan (2015).

In recent years, indicators extracted from Internet search data or from content that was posted on social media platforms have also gained popularity. For example, an increase in the search frequency in Google, a measure of investor attention, was shown to lead to higher stock prices by Da et al. (2011), whilst Internet stock message boards were found by Antweiler and Frank (2004) to have predictive power for market volatility. Finally, Sprenger et al. (2014a) used Twitter data from the Stock-Twits platform to identify news events from an investor perspective and showed the asymmetric impact of good and bad news.

3. Data description

We use an extensive dataset consisting of monthly observations on equity and bond portfolio flows, news media coverage, and various control variables for 49 countries in addition to the US over the period 2007:01–2017:10 (for a total of 6370 observations).[2] Throughout, the US is considered the domestic or home economy. Table 1 provides a list of the countries examined. A more detailed description of the dataset and data summary statistics are presented in the following sub-sections.

3.1. Portfolio flows

The series used are monthly observations on bilateral portfolio investment flows between the US and the rest of the world, denominated in US dollars. Equity and bond portfolio investment flow data have been obtained from the US Treasury International Capital (TIC) System. As pointed out by Edison and Warnock (2008), these data have three main limitations. First, they only cover transactions involving US residents, i.e., they represent bilateral US portfolio inflows and outflows and do not include other cross-border portfolio flows. Second, transactions taking place via third countries lead to a financial centre bias in the bilateral flows data as they are recorded against the foreign intermediary rather than where the issuer of the foreign security resides. Third, financing of cross-border mergers through stock swaps makes the analysis of equity flows rather difficult.

Despite these limitations, the TIC data have been widely used in the empirical literature as still being informative about bilateral portfolio investments between the US and the rest of the world. Moreover, the second and third issue mentioned above are likely to be trivial in the context of emerging and developing countries. Further, we check the robustness of our findings by excluding countries that can be considered financial centres.

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[2] The start date was chosen on the basis of the availability of news media data.

Table 1
List of countries.

	Full Sample	Reduced Sample		Full Sample	Reduced Sample
Argentina	x	x	Luxemburg	x	
Australia	x	x	Malaysia	x	x
Austria	x	x	Mexico	x	x
Belgium	x	x	Morocco	x	x
Brazil	x	x	Netherlands	x	x
Canada	x	x	New Zeland	x	x
Chile	x	x	Norway	x	x
China	x	x	Pakistan	x	x
Czech Republic	x	x	Peru	x	x
Colombia	x	x	Philippines	x	x
Denmark	x	x	Poland	x	x
Egypt	x	x	Portugal	x	x
Finland	x	x	Russia	x	x
France	x	x	Singapore	x	
Germany	x	x	South Africa	x	x
Greece	x	x	South Korea	x	x
Hong Kong	x		Spain	x	x
Hungary	x	x	Sweden	x	x
India	x	x	Switzerland	x	
Indonesia	x	x	Taiwan	x	x
Ireland	x	x	Thailand	x	x
Israel	x	x	Turkey	x	x
Italy	x	x	UK	x	
Japan	x		Venezuela	x	x
Lebanon	x	x			
			Total number of countries	49	43

Note: The series used are monthly and span the period 2007:01–2017:10 for 49 countries, a total of 6370 observations. The US is considered the domestic or home economy. Full sample refers to all 49 countries considered in our sample. The reduced sample leaves out six countries which are considered financial centres (i.e., Hong Kong, Japan, Luxembourg, Singapore, Switzerland and the United Kingdom), thus only considering 43 countries, a total of 5590 observations.

Gross inflows and outflows are measured as net purchases and sales of domestic assets (equities or bonds) by domestic and foreign residents, and net purchases and sales of foreign assets (equities or bonds) by domestic and foreign residents, respectively. Therefore for each country we have measures of both bond and equity inflows and outflows, where positive numbers imply inflows (in millions of US dollars) towards the US or outflows from its counterparts.[3] Figs. 1 and 2 display respectively equity and bond inflows into the US (upper panel) and outflows from the US (lower panel). Visual inspection suggests that both inflows into and outflows from the US vis-a-vis the counterpart countries exhibit significant fluctuations over the sample period. Several recent studies have attributed them to pull and push factors (see, e.g., Fratzscher, 2012; Sarno et al., 2016, among others), as well as to the unconventional monetary policy adopted in the developed world during the post-crisis period (see, e.g., Lim and Mohapatra, 2016; Fratzscher et al., 2018, among others). In this paper, we explore the role of news media coverage as a driver of portfolio flows, while also taking into account the wide range of other factors considered by previous studies.

Note that, in order to facilitate model convergence, flows are scaled using the average of their absolute values over the previous 12 months as in Brennan and Cao (1997), Hau and Rey (2006), Chaban (2009), etc.

3.2. News coverage measures

The data used for constructing the news indices are collected from Bloomberg; specifically, we retrieve news headlines including the words "Economic outlook", "Business outlook", "Stock Market", "Corporate bond", and "Unemployment", which yields 6,165,103 news stories in total. News headlines counts are then calculated for both positive and negative news (each news story counting for one) using a classification based on the string search algorithm available in the Bloomberg News application, details of which are not available. This produced totals of 3,015,658 "positive" and 3,149,445 "negative"

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[3] Although the US TIC System provides disaggregated transactions on US bonds between the US and foreign residents (e.g. US Treasury bonds and notes, US government agency bonds, and US corporate bonds), transactions on foreign bonds between US residents and foreigners are aggregate. Therefore, aggregate bond inflows and outflows between the US and the counterpart countries are used for the analysis. The US TIC System also provides data on short-term US securities held by foreigners (with liabilities payable in foreign currencies being reported at quarterly frequency); however, given the fact that the focus of our paper is on monthly bilateral flows between the US and the counterpart countries, analysing the behaviour of short-term US securities held by foreigners is left for future research.
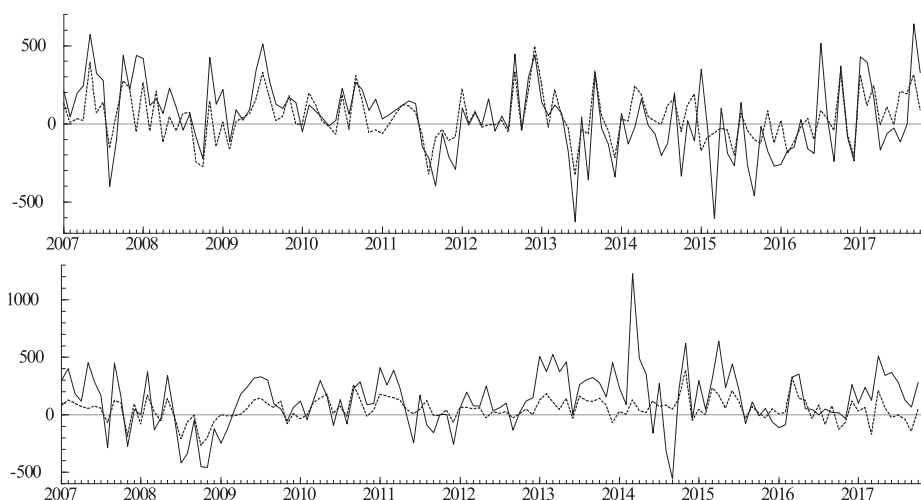
Fig. 1. Monthly (average) equity inflows into the US (upper panel) and outflows from the US (lower panel), in millions of US dollars. The solid (dashed) line refers to average inflows and outflows for all 49 countries vis-a-vis the US (excluding the six financial centers).

Fig. 2. Monthly (average) bond inflows into the US (upper panel) and outflows from the US (lower panel), in millions of US dollars. The solid (dashed) line refers to average inflows and outflows for all 49 countries vis-a-vis the US (excluding the six financial centers).
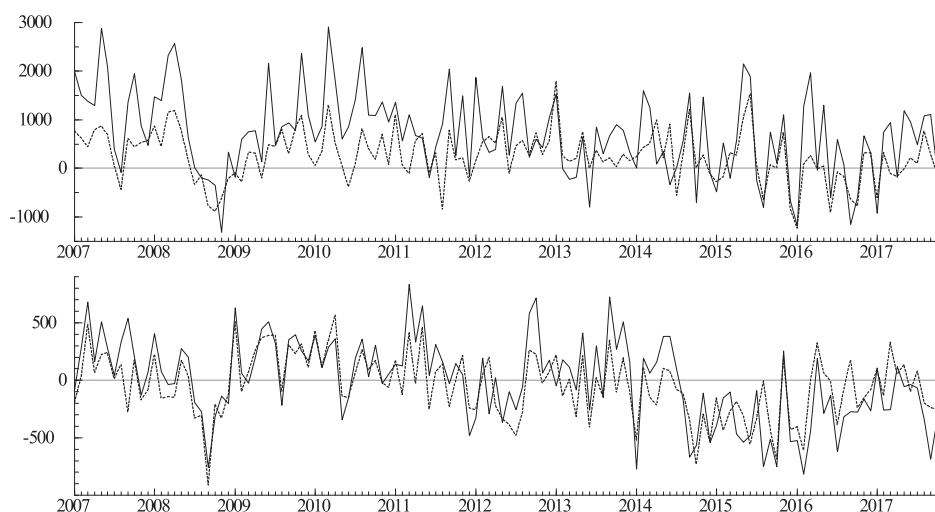
news respectively; a sample of the latter is presented in Appendix A. For instance, the first news story concerning an increase in French unemployment would be counted as one in the category of negative news.

News stories were also classified by country. Out of the total 6,165,103 news stories, 2,326,151 concern the US whereas 3,838,952 are associated with the other 49 countries. Table 2 reports the totals for news stories, positive and negative news by country. For example, of the 2,326,151 US news stories, 1,016,773 (1,309,378) were classified as positive (negative), whilst of the 3,838,952 news stories concerning the other countries 1,998,885 (1,840,067) were classified as positive (negative). Thus negative news stories outnumbered positive ones in the US (43.7% vs 56.3%), which presumably reflects the impact of the 2008–09 global financial crisis, the 2011–12 European sovereign debt crisis and the uncertainty associated with the 2016 presidential election; in contrast, in the other countries the percentage of positive news is slightly higher than that of negative ones over the sample period considered (52.07% vs 47.93%). This is also apparent from Figs. 3–5. Fig. 3 shows monthly total news stories for the US (upper panel) and the other 49 countries (lower panel, as an average). Figs. 4 and 5 have the same layout but display monthly negative and positive news stories instead. Countries with a prevalence of positive news include the Scandinavian ones, Australia, Canada, India, Malaysia, Peru, the Philippines, Poland and South Korea. In contrast, negative news dominate in the case of Egypt, Mexico, Pakistan, Russia and Taiwan, whilst the two categories are evenly balanced in the case of Italy and South Africa.

Table 2
News stories counts per country.

	Total News	Classified as			Total News	Classified as	
		Positive	Negative			Positive	Negative
Argentina	16,401	7,921	8,480	Luxemburg	25,397	13,080	12,317
Australia	37,578	22,922	14,656	Malaysia	64,223	40,288	23,935
Austria	43,550	23,853	19,697	Mexico	40,280	17,352	22,928
Belgium	49,446	27,477	21,969	Morocco	2,710	1,193	1,517
Brazil	99,166	48,462	50,704	Netherlands	85,533	45,792	39,741
Canada	196,237	109,976	86,261	New Zealand	32,491	19,360	13,131
Chile	25,161	13,594	11,567	Norway	46,088	30,247	15,841
China	340,149	177,042	163,107	Pakistan	29,483	6,711	22,772
Czech Republic	23,999	14,365	9,634	Peru	10,316	6,430	3,886
Colombia	13,629	7,998	5,631	Philippines	35,542	22,671	12,871
Denmark	37,020	22,768	14,252	Poland	39,338	22,196	17,142
Egypt	18,013	7,288	10,725	Portugal	32,852	17,701	15,151
Finland	45,312	28,851	16,461	Russia	84,989	35,870	49,119
France	160,347	81,254	79,093	Singapore	55,981	31,726	24,255
Germany	240,131	122,151	117,980	South Africa	61,826	30,800	31,026
Greece	48,413	23,743	24,670	South Korea	80,718	45,887	34,831
Hong Kong	209,726	110,260	99,466	Spain	75,482	38,867	36,615
Hungary	23,677	13,834	9,843	Sweden	65,890	42,359	23,531
India	132,448	85,017	47,431	Switzerland	96,152	49,486	46,666
Indonesia	40,022	20,875	19,147	Taiwan	110,686	40,272	70,414
Ireland	46,319	24,376	21,943	Thailand	51,248	29,097	22,151
Israel	34,546	18,144	16,402	Turkey	38,942	17,945	20,997
Italy	107,129	53,435	53,694	UK	372,568	181,677	190,891
Japan	299,017	141,221	157,796	US	2,326,151	1,016,773	1,309,378
Lebanon	3,054	462	2,592	Venezuela	9,727	4,589	5,138
				Total	6,165,103	3,015,658	3,149,445

Note: News story counts reported refer to news that included the words "Economic outlook", "Business outlook", "Stock Market", "Corporate bond", and/or "Unemployment". The entries refer to the number of news headlines classified by Bloomberg as positive or negative.

Fig. 3. Monthly total number of news headlines for the US (upper panel) and 49 other countries (lower panel, presented as an average).

Note that news stories concerning the six countries that can be classified as financial centres represent 27.58% (1,058,841) of the total for the whole sample excluding the US (3,838,952). Negative news are prevalent in Japan and the UK, positive news in the other four financial centres, i.e. Luxembourg, Switzerland, Singapore and Hong Kong.

$News_{i,t}^{positive}$ and $News_{i,t}^{negative}$ denote the number of positive and negative news stories respectively in country i at month t; these are then used to construct various indices to capture various possible news effects as explained below.
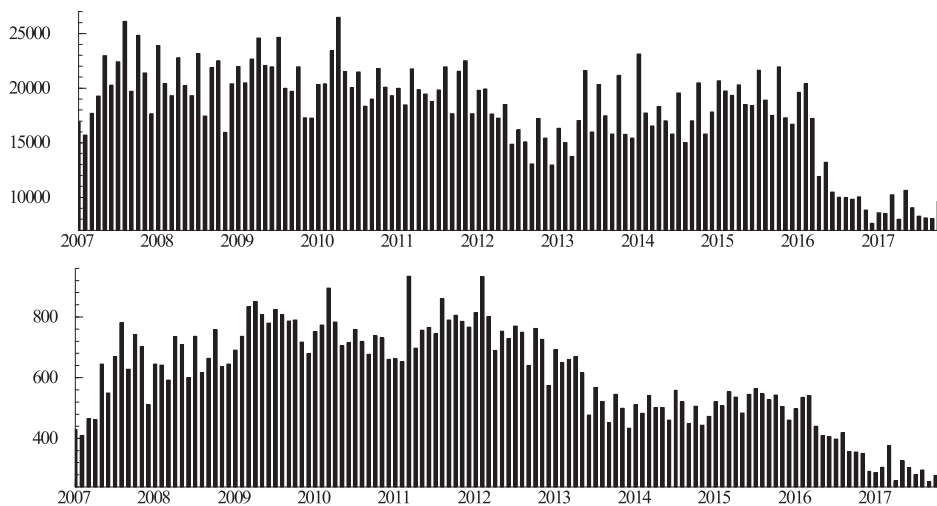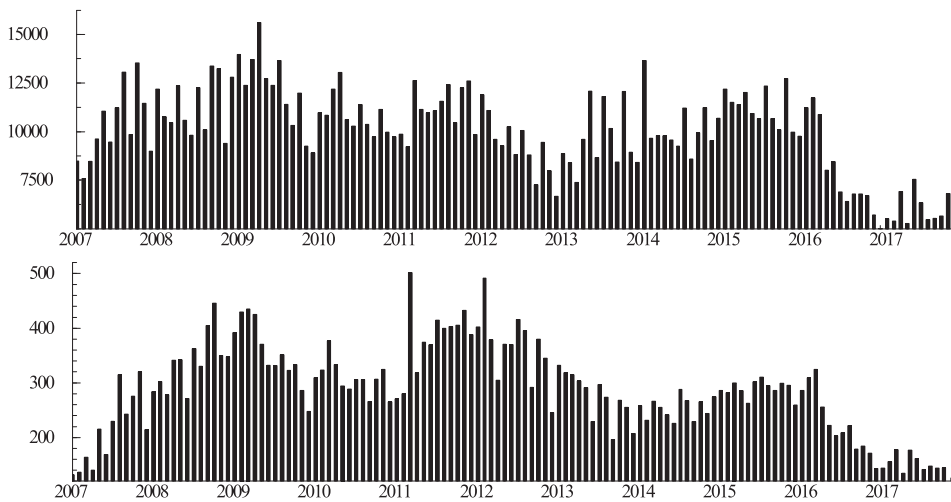
Fig. 4. Monthly total number of negative news headlines for the US (upper panel) and 49 other countries (lower panel, presented as an average).
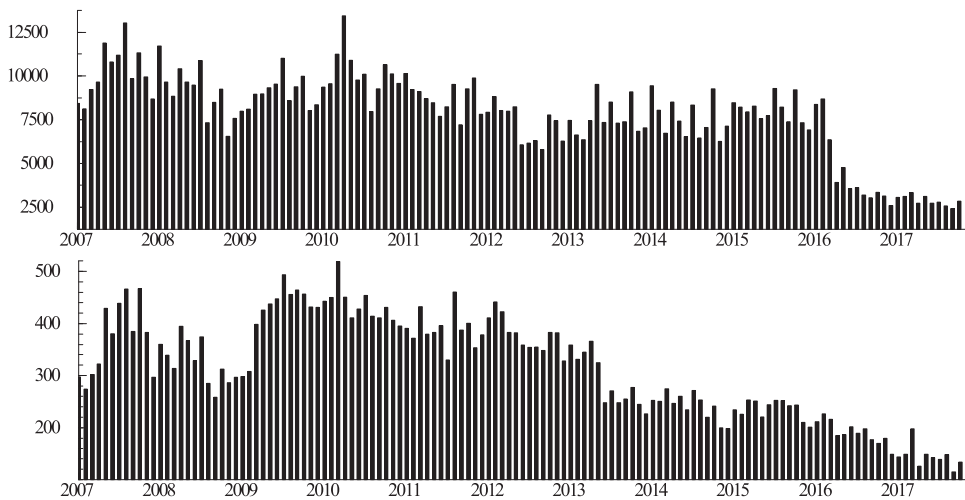
Fig. 5. Monthly total number of positive news headlines for the US (upper panel) and 49 other countries (lower panel, presented as an average).

3.2.1. News pessimism index

To analyse the impact of news on portfolio flows, we first calculate a pessimism index defined as the percentage of total news headlines with a negative connotation during month t (see Tetlock, 2007; Tetlock et al., 2008; Birz and Lott, 2011). This takes the following form:

$$Pessimism\ Index_{i,t} = \frac{News_{i,t}^{negative}}{News_{i,t}^{positive} + News_{i,t}^{negative}} \in [0,1]. \tag{1}$$

Therefore, this index captures negative news coverage or sentiment, and ranges from 0 (no negative stories) to 1 (all negative) during month t for each country i in our sample.

3.2.2. News intensity index

Next, we consider the intensity of news coverage, which can influence the views of investors and hence their sentiment. News intensity is proxied by the log of positive and negative news, respectively. Following Birz and Lott (2011) and Caporale et al. (2016, 2018a), these indices take the following form:

$$Intensity\ Index_{i,t}^{j} = \ln(News_{i,t}^{j}), \tag{2}$$

where *j* refers to positive, or negative news. Visual inspection of Fig. 4 suggests that the intensity of negative news was higher during the period including the global financial crisis, the European sovereign debt crisis and the US 2016 presidential campaign in both the US (upper panel) and the other countries (lower panel). In contrast, there is no clear pattern emerging from Fig. 5 for the intensity of positive news in the US (upper panel), but it was clearly higher in the other countries (lower panel) following the global financial crisis.

3.2.3. Changes in news pessimism and intensity indices
We also calculate changes in the pessimism and intensity indices (see Tetlock, 2007), namely:

$$Pessimism\ Changes_{i,t} = \frac{Pessimim\ Index_{i,t} - Pessimim\ Index_{i,t-1}}{Pessimim\ Index_{i,t-1}}, \tag{3}$$

and

$$Intensity\ Changes_{i,t}^{j} = Intensity\ Index_{i,t}^{j} - Intensity\ Index_{i,t-1}^{j}, \tag{4}$$

where *j* refers to positive or negative news stories, and both the *Pessimism Index*$_{i,t}$ and *Intensity Index*$_{i,t}^{j}$ are defined as before.[4]

3.2.4. News sentiment index
To gain additional insights into the impact of news media coverage on cross-border portfolio flows we also construct an average sentiment measure, as in Antweiler and Frank (2004), by aggregating (positive and negative) news during a given time interval *t*. Specifically, we classify each positive headline as +1 and each negative one as −1 and construct a monthly news sentiment index at the country level as follows:

$$Sentiment\ Index_{i,t} = \frac{News_{i,t}^{positive} - News_{i,t}^{negative}}{News_{i,t}^{positive} + News_{i,t}^{negative}} \in [-1, +1]. \tag{5}$$

Thus, this index captures the average news media sentiment and ranges from −1 (all negative stories) to +1 (all positive) during month *t* for each country *i* in our sample. Fig. 6 displays it for both the US (upper panel) and the other 49 countries (lower panel, as an average). As can be seen, in the case of the US it captures the negative news connotation during the global financial crisis, the European debt crisis and the 2016 presidential election; in the other countries, one can detect the impact of negative news during the 2007–08 crisis and also the period from early 2014 to mid-2016, when most emerging market currencies depreciated significantly as a result of the Fed's first interest rate increase in the post-crisis period and the ensuing drop in capital inflows to these countries.

3.2.5. News disagreement index
Since different categories of news (i.e., positive and negative) can hit the market during a given time interval *t*, we also construct a news disagreement index by computing the standard deviation of the news sentiment index, as in Antweiler and Frank (2004), Sprenger et al. (2014), Al-Nasseri and Menla Ali (2018), and more recently Cookson and Niessner (2020).[5] Because the underlying variable is binary (−1/1), the variance of the sentiment measure during time *t* equals 1 − *Sentiment Index*$_{i,t}^{2}$ for each country *i* (see Antweiler and Frank (2004) and Cookson and Niessner (2020) for more details):

Fig. 6. Evolution of the news sentiment indices for the US (upper panel) and 49 other countries (lower panel, presented as an average).
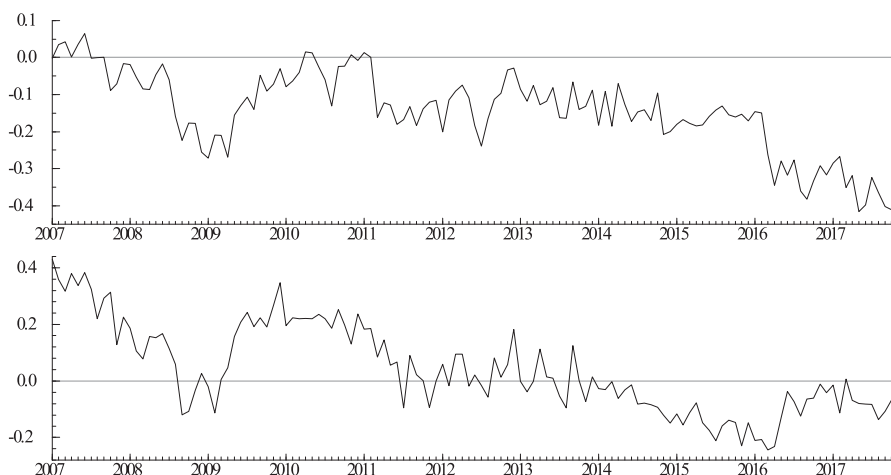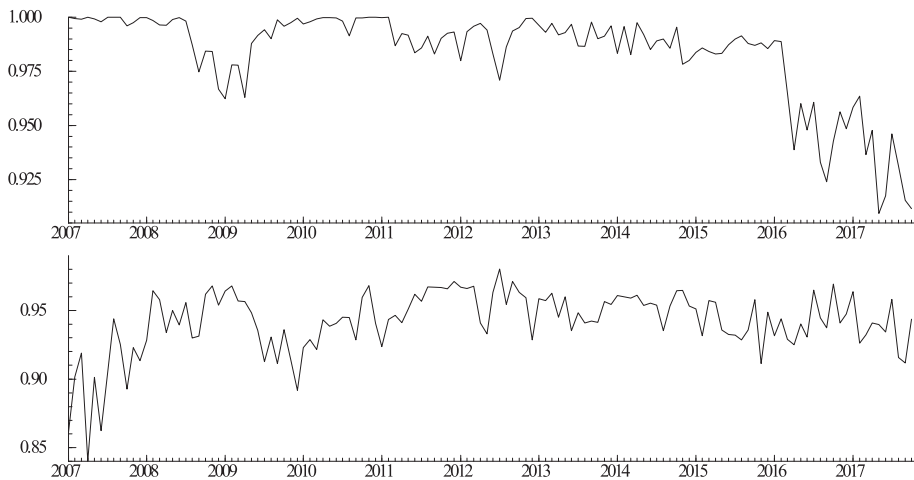
Fig. 7. Evolution of the disagreement news indices for the US (upper panel) and 49 other countries (lower panel, presented as an average).

$$Disagreement\ Index_{i,t} = \sqrt{1 - Sentiment\ Index_{i,t}^2} \in [0, 1]. \tag{6}$$

Note that this index ranges between 0 and 1 (during month t for each country i). Specifically, when all news are either positive or negative over a given time interval t, it is equal to 0, since the ratio of positive to negative news represented by the *Sentiment Index*$_{i,t}$ in Eq. (5) will be 1. Further, if the number of positive news is equal to that of negative ones, the index will be equal to 1. Therefore, as the degree of homogeneity of news increases (decreases), the index gets closer to 0(1). Fig. 7 shows the news disagreement indices for both the US (upper panel) and the other 49 countries (lower panel, as an average). It is apparent that news disagreement was generally high in both the US and the other countries over the whole sample, but lower at the time of the global financial crisis of 2007–08 and the US presidential election of 2016 (for the US), when negative news prevailed.

3.3. Pull and push control variables

We consider the following set of pull and push factors as control variables:

Return or yield chasing measures: (i) the stock return differential, which is the spread between the log changes of the S&P 500 index and of the main local stock price index of each of the other countries, and (ii) the interest rate differential, which is the spread between the 3-month US Treasury bill rate and the 3-month money market rate of each of the other countries.

Macroeconomic variables: (i) economic growth differential, which is the spread between the log changes of industrial production in the US and in each of the other countries, and (ii) unemployment rate differential, which is the spread between the unemployment rate in the US and in each of the other countries.

Global risk aversion: this is proxied by the changes in the Chicago Board Options Exchange volatility index (known as VIX), which is a measure of implied volatility calculated using option prices on the S&P 500 index. Several recent studies have documented the importance of changes in the VIX as a global factor affecting capital flows dynamics – see, for example, Fratzscher (2012), who found that an increase in the VIX led to net outflows from the advanced economies towards the emerging markets before this effect was reversed by the global financial crisis; Forbes and Warnock (2012), who reported that movements in the VIX are negatively associated with episodes of "surges" and "flights" (sharp increases in gross inflows and outflows, respectively) and positively associated with episodes of "stops" and "retrenchment" (sharp decreases in gross inflows and outflows, respectively); Rey (2015), who showed the existence of negative correlations between the VIX and most types of capital inflows (e.g., portfolio equity, portfolio debt and credit, except FDI for which the correlation was positive), even when regional differences are taken into account.

Current account position and related restrictions: Reinhardt et al. (2013) argued that low capital account openness in developing countries is a reason for the lack of capital inflows towards them. Consequently, our analysis also includes (i) the current account balance as a percentage of GDP to capture whether the country is running a deficit or surplus and its implications for international competitiveness and/or pull of capital inflows,[6] (ii) an exchange rate regime variable, namely the index by Ilzetzki et al. (2019) with values ranging from 1 to 15, where higher values imply a more flexible exchange rate, and (iii) capital controls, specifically the dummy created by Ilzetzki et al. (2019), which takes the value of 1 for periods with capital account restrictions and 0 otherwise.

Institutional quality measure: both Alfaro et al. (2008) and Papaioannou (2009) pointed out that the Lucas paradox can be explained by institutional quality.[7] Moreover, Fratzscher (2012) showed that domestic institutional quality is relevant as a pull factor, since capital flows are highly heterogeneous across countries. Therefore, our analysis also considers the aggregate International Country Risk Guide (ICRG) index provided by the PRS Group. This index ranges between 0 and 100, with higher values indicating better institutions and less political risk.

Unconventional monetary policy: Fratzscher et al. (2018) recently found strong dynamic effects of the US quantitative easing episodes on global asset prices and capital flows. Hence, we use a set of dummy variables to capture the three episodes of quantitative easing in the US: US-QE1 takes the value of 1 from December 2008 to March 2010, 0 otherwise; US-QE2 takes the value of 1 from November 2010 to June 2011, 0 otherwise; US-QE3 takes the value of 1 from September 2012 to December 2013, 0 otherwise. Since the ECB, following the European sovereign debt crisis, has also implemented various stimulus schemes such as the asset-backed securities purchase programme, we include an additional dummy (named ECB-QE) to capture the ECB's unconventional monetary policy over our sample period; this takes the value of 1 from October 2014 until the end of our sample for the euro area countries, 0 otherwise.

Sovereign credit risk: this is the differential between the CDS spread on 5-year US sovereign debt and that of each of the other countries. Although Reinhart and Rogoff (2004) pointed out that the Lucas paradox can be explained by sovereign credit risk, the role of this factor in driving cross-border portfolio flows is yet to be explored, and this study is the first attempt to capture this pull factor as a possible determinant.

Financial market sophistication: we use a dummy variable for each country in the sample (except the US), which is based on the index of sophistication of financial markets obtained from the World Competitiveness Report released every year over our sample period; it takes the value of 1 if it is higher than the average of the corresponding indices of all countries reported in the year, 0 otherwise. The only other paper that has considered the effect of this factor (but on equity flows only) is Portes and Rey (2005).

Other control variables: (i) log changes of the S&P GSCI commodity price index are also included, and (ii) to check the sensitivity of the results to the so-called financial centre bias, the estimation is carried out not only for the full sample of countries, but also for a sub-sample of 43 countries which excludes six financial centres (i.e. Hong Kong, Japan, Luxembourg, Singapore, Switzerland and the UK).[8]

3.4. Descriptive statistics

Variables definitions, data sources and descriptive statistics are reported in Tables 3–5. The monthly sample means of equity inflows and outflows are positive, with the latter (0.153) being almost double the former (0.085), which indicates that the US, on average, experiences more equity outflows than the counterpart countries (Table 5). The exclusions of the financial centres does not affect the general picture. The monthly mean of bond inflows and outflows is positive and negative respectively for the sample as a whole, but the former becomes negative (and small) when the financial centres are dropped. Overall, these statistics reflect the fact that US bonds are perceived as safe-haven assets during stress times and also that bond markets in most other countries are less developed. As for volatility, outflows exhibit higher volatility than inflows in the case of bonds but the opposite holds for equities, which reflects the different dynamics in the components of flows, and provides further evidence that analysing them separately is more informative.

Concerning the news variables (Table 4), the pessimism index indicates that the percentage of negative news is below 50% for the counterpart countries in both samples, with and without the financial centres, but higher in the US (57.1%). The news intensity index exhibits a similar pattern in the counterpart countries in both samples, with the number of positive news headlines being larger than that of negative ones, whilst the opposite holds for the US (3.991 vs 3.865). As for the standard deviations, the news pessimism in the US is substantially less volatile (0.054) than elsewhere (0.157); a similar pattern is also observed in the case of the intensity index, namely lower volatility is found in the US.

Regarding the changes in the pessimism and intensity indices, their mean values are small for the counterpart countries and even smaller for the US; their volatilities are significantly higher, and lower in the US than elsewhere.

Finally, the mean of the news sentiment index for the other countries is similar in both samples (0.039 vs 0.044): on average, positive sentiment is found in the counterpart countries, but not in the US, for which the news sentiment index is negative (−0.142) over the sample period considered. As for news disagreement, the mean for the other countries is 0.941 for the full sample and 0.937 for the sample without the financial centres, whereas the corresponding mean for the US is slightly higher (0.983). Further, both the sentiment and disagreement indices exhibit higher volatility in the other countries compared to the US, as in the case of the other news indices.

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[6] Linear interpolation from the quarterly to the monthly frequency was carried out for this variable.

[7] The so-called Lucas paradox refers to the fact that capital does not flow from developed to developing countries as one would expect given the lower levels of capital per worker in the latter (see Lucas, 1990). Various explanations have been provided for this puzzle in recent years, such as informational asymmetries (Portes et al., 2001), credit risk (Reinhart and Kenneth, 2004), low institutional quality (see, e.g. Alfaro et al., 2008; Papaioannou, 2009), and low capital account openness (Reinhardt et al., 2013).

[8] Concerning the sources of the control variables, stock market indices, the S&P GSCI commodity price index, the CDS spreads, and the VIX volatility index have been obtained from Thomsom Datastream, whereas the data on the current account (as % of GDP), short-term interest rates, industrial production indices, and unemployment rates are from the IMF's International Financial Statistics (IFS).

Table 3
Variables definition.

Variables	Definition	Unit	Source
	Portfolio Flows		
Bond			
Inflows	Gross bond inflows towards the US from other countries	Scaled by previous 12 months average	TIC System
Outflows	Gross bond outflows from the US towards other countries	Scaled by previous 12 months average	TIC System
Equity			
Inflows	Gross equity inflows towards the US from other countries	Scaled by previous 12 months average	TIC System
Outflows	Gross equity outflows from the US towards other countries	Scaled by previous 12 months average	TIC System
	News Media Indices		
Media Pessimism			
Pessimism Index	Negative news stories count divided by the total number of news	Percentage (%)	Bloomberg
News Media Intensity			
Intensity Index^{negative}	Natural Log of negative news stories count	Logarithm	Bloomberg
Intensity Index^{positive}	Natural Log of positive news stories count	Logarithm	Bloomberg
Changes in Media Pessimism			
Pessimism Changes	Monthly % change in pessimism index	Percentage (%)	Bloomberg
Changes in News Intensity			
Intensity Changes^{negative}	Monthly changes in negative news intensity index	Percentage (%)	Bloomberg
Intensity Changes^{positive}	Monthly changes in positive news intensity index	Percentage (%)	Bloomberg
Media Sentiment and Disagreement			
Sentiment Index	Net news signal as % of total news	Percentage (%)	Bloomberg
Disagreement Index	Variance of sentiment index	Percentage (%)	Bloomberg
	Control Variables		
Return/yield chasing measure			
Stock Returns Diff.	Relative returns of stock market indexes, between the US and the other countries	Stock returns differential (%)	Datastream
Interest Rate Diff.	3-months interest rate spread, between the US and the other countries	Rates differential (%)	IMF, OECD
Macroeconomic Indicators			
Unemp. Rate Diff.	Relative unemployment rates, between the US and the other countries	Unemp. Rates differential (%)	IMF, OECD
GDP Growth Diff.	Relative industrial production growth rates, between the US and the other countries	Growth rates differential (%)	IMF, OECD
Global Risk Aversion			
VIX	VIX volatility index	In 1st difference	Datastream
Current Account Position			
Current Account	Current account to GDP ratio for other countries	% of GDP	IMF, OECD
FX arrangement	FX regime index, higher index for more flexible FX	Index (1–15)	Ilzetzki et al.
Capital Controls	Dummy = 1 for capital account restrictions periods	0/1 Dummy	Ilzetzki et al.
Institutional Quality Measure			
ICRG	Political risk index, higher number = better institutions	Index (0–100)	PRS Group
Unconventional Mon. Policy			
US-QE1	Dummy = 1 for Dec. 2008 - Mar. 2010	0/1 Dummy	US' Fed
US-QE2	Dummy = 1 for Nov. 2010 - June 2011	0/1 Dummy	US' Fed
US-QE3	Dummy = 1 for Sep. 2012 - Dec. 2013	0/1 Dummy	US' Fed
ECB-QE	Dummy = 1 for Oct. 2014 - Oct. 2017, euro members	0/1 Dummy	ECB
Sovereign credit risk			
CDS Spread	Relative spreads on 5-year sovereign debt, between the US and the other countries	Spreads diff. (%)	Datastream
Other Control Variables			
FM Sophistication	Dummy = 1 (scores above the countries average, 8th pillar of Global Competitiveness Index: Financial Market Development)	0/1 Dummy	The Global Competit. Report
S&P GSCI	S&P GSCI commodity price index	Log changes	Datastream

Note: Definitions of news indices and how they were constructed are presented and discussed in Section 3.2.

Table 4
News indices summary statistics.

Variables	Full sample				Reduced Sample				US			
	Mean	S.D.	Min	Max	Mean	S.D.	Min	Max	Mean	S.D.	Min	Max
	Pessimism and Intensity Indices											
Pessimism Index	0.480	0.157	0	1	0.477	0.162	0	1	0.571	0.054	0.467	0.707
Intensity Index$^{neg.}$	2.181	0.515	1.563	3.787	2.121	0.490	1.342	3.383	3.991	0.103	3.701	4.193
Intensity Index$^{pos.}$	2.215	0.575	1.309	3.480	2.158	0.561	1.212	3.351	3.865	0.170	3.382	4.128
	Monthly Changes in Pessimism and Intensity Indices											
Pessimism Changes	0.004	0.076	−0.398	0.661	0.004	0.079	−0.398	0.661	0.001	0.016	−0.036	0.053
Intensity Changes$^{neg.}$	0.003	0.076	−0.449	0.903	0.003	0.077	−0.449	0.903	0.001	0.015	−0.029	0.042
Intensity Changes$^{pos.}$	0.001	0.077	−0.526	0.903	0.001	0.081	−0.526	0.903	0.001	0.014	−0.044	0.026
	Sentiment and Disagreement Indices											
Sentiment	0.039	0.314	−1	1	0.044	0.324	−1	1	−0.142	0.108	−0.415	0.064
Disagreement	0.941	0.111	0	1	0.937	0.115	0	1	0.983	0.021	0.909	1

Note: The US is considered the domestic or home economy. Full sample refers to all 49 countries considered in our sample (6370 obs.). Reduced sample leaves out six countries which are considered financial centres (i.e. Hong Kong, Japan, Luxembourg, Singapore, Switzerland and the United Kingdom), thus only considering 43 countries (5590 obs.). Definitions of news indices and how they were constructed are presented in Section 3.2.

4. Methodology and empirical results

As already mentioned, the aim of the empirical analysis is to investigate the impact of news media coverage on portfolio flows, whilst also controlling for a number of push and pull (fundamental) factors. Specific issues of interest are whether or not there is an asymmetric impact of positive versus negative news and US versus non-US news. For this purposes a dynamic panel data model with fixed effects is estimated.[9] The model takes the following form:

$$y_{i,t} = \alpha_i + \sum_{k=1}^{3} \phi_k y_{i,t-k} + \beta_1 News_{i,t-1} + \beta_2 USNews_{i,t-1} + \gamma Z_{i,t-1} + \varepsilon_{i,t}, \tag{7}$$

where $y_{i,t}$ stands for equity or bond portfolio flows for country i during month t; more precisely, we consider in turn bond inflows, bond outflows, equity inflows and equity outflows as the dependent variable, $y_{i,t}$. An autoregressive structure is allowed up to 3 lags; insignificant lags are dropped. $Z_{i,t-1}$ is the vector of control variables described in Section 3.3.

$USNews_{i,t-1}$ and $News_{i,t-1}$ are the news indicators for the US and the counterpart countries, respectively. Note that the news indices are lagged to avoid potential endogeneity issues, since contemporaneous effects would imply that news coverage is possibly driven by market movements. Another reason for using lagged news indices is that most behavioural finance theories suggest that sentiment is a strong negative predictor of future returns since it drives assets away from their fundamental values, e.g. when sentiment is high (low), expected stock returns are relatively low (high) (see, e.g., Baker and Wurgler, 2006, 2007, Jiang et al., 2019; among others). Finally, the analysis of contemporaneous news effects on flows would represent a challenge because media coverage is not random where unobservable factors affecting it may also influence investor behaviour as pointed out by Engelberg and Parsons (2011).

Various model specifications are estimated. The first (Model 1) and the second (Model 2) include in turn the news pessimism index and the news intensity indices as possible determinants of portfolio flows. The next specifications include instead a measure of news changes, namely the monthly changes of the news pessimism (Model 3) and the news intensity (Model 4) indices. Finally, we consider the effects of the average news sentiment (Model 5) and news disagreement (Model 6) indices.[10] The estimated models with the associated robust t-statistics are presented in Tables 6–11. It is noteworthy that the estimated parameters measure the average percentage response of flows to their determinants for the panel as a whole, and thus country-specific examples would not be informative. Of particular interest are the coefficients on news indices, which capture the sensitivity of flows to news; for instance, an increase in US pessimism by 1% brings about a fall in bond portfolio inflows into the US by 1.195% (see Table 6, first column).[11] Next, we discuss in detail the entire set of results.

4.1. News pessimism and intensity

Tables 6 and 7 present the results showing the effects of news pessimism and news intensity on bond and equity flows, respectively; the left (right) panel in both tables refers to the full sample (the sample without the financial centres). On the

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[9] The random effect hypothesis was tested and rejected by means of Hausman (1978) test.

[10] We control for the time dimension by lagging the independent variables once. However, for the baseline news indicators such as the pessimism and news intensity indices, we also consider the effect of the average over the previous 3 months. As a robustness check we also used 6-month and 12-month averages of the news indices. The results were qualitatively similar, though the parameter estimates are bigger (in absolute values) when averages over longer periods are used. These results are not reported due to space constraints but are available from the authors upon request.

[11] Note that flows are scaled using the average of their absolute values over the previous 12 months, as stated earlier.

Table 5
Portfolio flows and pull - push control variables summary statistics.

	Full Sample				Reduced Sample			
Variables	Mean	S.D.	Min	Max	Mean	S.D.	Min	Max
	Portfolio Flows							
Bond								
Inflows	0.019	2.043	−38.212	42.002	−0.001	2.094	−38.212	42.002
Outflows	−0.247	5.349	−300.01	54.756	−0.266	5.668	−300.01	54.756
Equity								
Inflows	0.085	2.501	−96.329	65.365	0.076	2.594	−96.329	65.365
Outflows	0.153	1.718	−24.069	25.013	0.146	1.743	−24.069	25.013
	Pull and Push Control Variables							
Return/yield measures								
Stock Returns Diff.	−0.001	0.058	−0.906	0.378	−0.001	0.060	−0.906	0.378
Interest Rate Diff.	−3.185	4.113	−29.211	4.571	−3.581	4.226	−29.211	4.571
Macro Indicators								
Unemp. Rate Diff.	−0.143	7.323	−89.852	48.780	−0.162	7.387	−89.852	48.780
GDP Growth Diff.	−0.001	0.053	−0.384	0.349	−0.001	0.050	−0.325	0.349
Global Risk Aversion								
VIX	19.968	9.281	10.125	62.253	19.968	9.281	10.125	62.253
Current Account								
CA (% GDP)	1.093	9.895	−4.898	17.366	0.036	4.236	−16.694	17.094
FX Arrangement	5.819	5.145	0	14	5.663	5.086	0	14
Capital Controls	0.039	0.194	0	1	0.045	0.207	0	1
Institutional Quality								
ICRG	60.740	29.481	0	93.666	59.512	28.952	0	93.666
Unconv. Mon. Pol.								
US–QE1	0.123	0.328	0	1	0.123	0.328	0	1
US–QE2	0.061	0.240	0	1	0.061	0.240	0	1
US–QE3	0.123	0.328	0	1	0.123	0.328	0	1
ECB–QE	0.069	0.254	0	1	0.072	0.259	0	1
Sovereign credit risk								
CDS Spread	−205.815	772.112	−24395.15	40	−224.362	806.732	−24395.15	38
Other Controls								
FM Sophistication	0.270	0.444	0	1	0.308	0.461	0	1
S&P GSCI Returns	−0.006	0.068	−0.331	0.179	−0.006	0.068	−0.331	0.179

Note: Flows refer to bilateral portfolio investment flows. Inflows (bond and equity) measure flows from individual countries towards the US. Outflows (bond and equity) measure flows from the US towards the individual countries. The data used consist of monthly observations, expressed in US dollars, over the period 2007:01–2017:10. The full sample comprises 49 countries (6370 obs.), whereas reduced sample comprises 43 countries (5590 obs.).

whole, both bond and equity flows appear to be responsive to news. Further, when the financial centres are excluded from the sample, the news effects on equity and bond inflows/outflows are estimated to be significantly bigger (in absolute value) in most cases. Also, in both samples US (worldwide) news appear to have a leading role in driving bond inflows to (outflows from) the US; by contrast, the impact of news on equity inflows into the US is relatively weak, whilst both US and worldwide news appear to affect equity outflows from the US.

More specifically, our results (see Table 6) suggest that bond inflows are negatively affected by US news pessimism (−1.195), whereas outflows are only driven by worldwide news pessimism (−1.136). As for the news intensity index, US positive intensity affects positively bond inflows whilst worldwide positive intensity has a positive impact on bond outflows. Worldwide negative intensity has a negative impact on bond outflows. When excluding the financial centres, the same pattern emerges although the parameters are even more significant (at the 1% level) and the point estimates are considerably higher (in absolute value), often twice as big compared to those for the whole sample. In addition, an effect of US negative intensity on bond inflows is detected, and with a large point estimate (−1.775).

Concerning equity flows, the results for both samples suggest that the impact of news on inflows is relatively weak compared to that on outflows (see Table 7). For example, equity inflows do not appear to be affected by news pessimism, whereas outflows are affected by worldwide pessimism (−0.661) and US news pessimism (1.445). As for the news intensity index, we find that US negative news intensity has a negative (positive) effect on inflows (outflows) which is significant at the 10% (1%) level, whilst in the counterpart countries it reduces equity outflows from the US (at the 1% significance level). Further, US (worldwide) positive news intensity has a negative (positive) impact on equity outflows at the 10% (1%) significance level. Finally the effects in the subsample without the financial centres seem slightly larger (in absolute value) in most cases.

Overall, we find that both news pessimism and news intensity have significant effects on agents' portfolio investment decisions that are more sizeable when the financial centres are excluded from the sample. For example, bond inflows into (outflows from) the US seem to be driven by US (worldwide) news. As for equity flows, only outflows from the US are affected by both US and worldwide news, whilst their impact on inflows into the US is rather weak.

Table 6
Bond portfolio flows and news pessimism and intensity indices.

	Full Sample				Reduced Sample			
	Inflows		Outflows		Inflows		Outflows	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Intercept	0.963**	1.039	−0.291	2.657	1.462***	2.761*	−1.464	2.458
	(1.99)	(0.71)	(−0.31)	(0.94)	(2.71)	(1.71)	(−0.98)	(0.55)
Lag($y_{i,t-1}$)	0.061***	0.061***	0.018	0.017	0.051***	0.051***	−0.001	−0.001
	(4.70)	(4.71)	(1.38)	(1.36)	(3.74)	(3.75)	(−0.06)	(−0.09)
Pessimism and Intensity Indices								
Pessimism	−0.551		−1.136***		−0.276		−2.153***	
	(−1.43)		(−2.68)		(−1.44)		(−3.27)	
US Pessimism	−1.195***		0.937		−2.088**		3.294	
	(−2.55)		(0.62)		(−2.16)		(1.39)	
Intensity^{negative}		−0.299		−0.496*		−0.162		−1.048***
		(−1.27)		(−1.94)		(−1.18)		(−2.76)
US Intensity^{negative}		−0.909		−0.230		−1.775***		0.961
		(−1.62)		(−0.21)		(−2.86)		(0.56)
Intensity^{positive}		0.240		0.633**		0.053		1.031***
		(1.57)		(2.28)		(0.35)		(2.44)
US Intensity^{positive}		0.690*		−0.657		1.172***		−1.844
		(1.69)		(−0.78)		(2.43)		(−1.39)
Pull and Push Control Variables								
Return/yield measures								
Stock Returns Diff.	−0.075	−0.065	−0.498	−0.520	−0.028	−0.015	−1.555	−1.549
	(−0.17)	(−0.15)	(−0.59)	(−0.61)	(−0.06)	(−0.03)	(−1.21)	(−1.20)
Interest Rate Diff.	0.013	0.012	−0.055**	−0.054*	0.022	0.022	−0.055	−0.055
	(0.94)	(0.90)	(−2.00)	(−1.96)	(1.47)	(1.40)	(−1.29)	(−1.28)
Macro Indicators								
Unemp. Rate Dif.	0.003	0.003	0.008	0.008	0.001	0.001	0.007	0.007
	(1.00)	(1.01)	(1.36)	(1.37)	(0.42)	(0.41)	(0.75)	(0.06)
GDP Growth Diff.	0.375	0.351	0.190	0.149	0.563	0.504	0.161	0.087
	(0.83)	(0.78)	(0.22)	(0.17)	(1.05)	(0.94)	(0.11)	(0.06)
Global Risk Aversion								
VIX	−0.001	−0.001	−0.004	−0.002	−0.003	−0.001	−0.005	−0.003
	(−0.46)	(−0.20)	(−0.61)	(−0.37)	(−0.92)	(−0.37)	(−0.54)	(−0.29)
Current Account								
CA (% GDP)	0.001	0.001	−0.001	−0.001	0.001	0.001	−0.022	−0.023
	(0.22)	(0.19)	(−0.32)	(−0.31)	(0.08)	(0.02)	(−0.62)	(−0.62)
FX Arrangement	−0.011	−0.010	0.018	0.025	−0.027**	−0.023*	0.014	0.021
	(−1.10)	(−0.92)	(0.87)	(1.17)	(−2.13)	(−1.76)	(0.42)	(0.59)
Capital Controls	−0.191	−0.191	−1.283*	−1.242*	−0.648*	−0.618*	0.261	0.290
	(−0.51)	(−0.53)	(−1.77)	(−1.71)	(−1.90)	(−1.81)	(0.28)	(0.31)
Institutional Quality								
ICRG	0.001	0.002	0.001	0.002	0.002	0.003	0.001	0.003
	(1.10)	(1.26)	(0.16)	(0.67)	(1.23)	(1.82)	(0.29)	(0.64)
Unconv. Mon. Pol.								
US-QE1	0.127	0.138	0.138	0.154	0.143	0.164*	0.082	0.111
	(1.45)	(1.56)	(0.81)	(0.90)	(1.48)	(1.68)	(0.31)	(0.41)
US-QE2	0.073	0.068	−0.344*	−0.350*	0.139	0.156	−0.365	−0.354
	(0.70)	(0.64)	(−1.68)	(−1.69)	(1.18)	(1.31)	(−1.12)	(−1.07)
US-QE3	−0.125*	−0.136*	−0.052	−0.095	−0.104	−0.135	−0.465*	−0.505**
	(−1.57)	(−1.66)	(−0.34)	(−0.60)	(−1.17)	(−1.47)	(−1.89)	(−1.98)
ECB-QE	0.082	0.071	−0.077	−0.042	0.127	0.114	−0.296	−0.289
	(0.68)	(0.57)	(−0.33)	(−0.17)	(0.91)	(0.79)	(−0.76)	(−0.73)
Sovereign credit risk								
CDS Spread	−0.001***	−0.001***	0.001	0.001	−0.001**	−0.001**	0.000	0.000
	(−2.40)	(−2.41)	(1.33)	(1.39)	(−2.03)	(−2.02)	(0.57)	(0.60)
Other Controls								
FM Sophistication	0.123	0.122	−0.041	−0.037	0.085	0.086	0.651***	0.657***
	(1.32)	(1.32)	(−0.23)	(−0.21)	(0.86)	(0.86)	(2.36)	(2.38)
S&P GSCI Returns	0.553	0.591	1.046	1.075	0.344	0.422	1.569	1.650
	(1.35)	(1.43)	(1.31)	(1.34)	(0.75)	(0.92)	(1.25)	(1.30)
Countries	49	49	49	49	43	43	43	43
Obs	6370	6370	6370	6370	5590	5590	5590	5590
R^2	0.112	0.101	0.096	0.115	0.012	0.022	0.064	0.063
F-statistics	4.02	1.67	1.65	1.58	3.66	3.44	1.62	1.48
	[0.000]	[0.013]	[0.013]	[0.014]	[0.000]	[0.000]	[0.014]	[0.016]

Note: Model 1 and Model 2 include news pessimism and news intensity indices, respectively. Robust t-statistics are reported in parentheses (.), whereas F-statistics p-values are reported in square brackets [.]. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 7
Equity portfolio flows and news pessimism and intensity indices.

	Full Sample				Reduced Sample			
	Inflows		Outflows		Inflows		Outflows	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Intercept	1.301**	2.314**	−0.240	−3.185***	1.129*	2.897	−0.218	−2.631*
	(2.01)	(2.19)	(−0.55)	(−2.44)	(1.65)	(1.41)	(−0.48)	(−1.95)
Lag($y_{i,t-1}$)	0.037***	0.036***	0.126***	0.125***	0.029**	0.029**	0.120***	0.119***
	(2.80)	(2.79)	(9.68)	(9.63)	(2.16)	(2.15)	(8.95)	(8.92)
				Pessimism and Intensity Indices				
Pessimism	−0.543		−0.611***		−0.541		−0.820***	
	(−1.60)		(−3.01)		(−1.61)		(−4.13)	
US Pessimism	−1.515		1.445**		−1.247		1.492**	
	(−1.47)		(2.08)		(−1.15)		(2.09)	
Intensity^{negative}		−0.282		−0.410***		−0.244		−0.498***
		(−1.61)		(−3.47)		(−1.40)		(−4.35)
US Intensity^{negative}		−1.345*		1.646***		−1.350*		1.496***
		(−1.80)		(3.27)		(−1.72)		(2.89)
Intensity^{positive}		0.180		0.239*		0.235		0.317***
		(0.94)		(1.86)		(1.21)		(2.47)
US Intensity^{positive}		0.858		−0.657*		0.645		−0.668*
		(1.49)		(−1.69)		(1.06)		(−1.66)
				Pull and Push Control Variables				
Return/yield measures								
Stock Returns Diff.	−1.439***	−1.419***	0.448	0.478	−1.525***	−1.528***	0.444	0.477
	(−2.48)	(−2.44)	(1.15)	(1.22)	(−2.59)	(−2.59)	(1.14)	(1.22)
Interest Rate Diff.	0.023	0.022	−0.001	−0.001	0.023	0.022	0.004	0.003
	(1.23)	(1.20)	(−0.05)	(−0.14)	(1.13)	(1.15)	(0.38)	(0.24)
Macro Indicators								
Unemp. Rate Dif.	−0.001	−0.001	0.001	0.001	−0.001	−0.001	0.002	0.002
	(−0.21)	(−0.20)	(0.32)	(0.36)	(−0.22)	(−0.22)	(0.65)	(0.69)
GDP Growth Diff.	0.364	0.317	0.440	0.478	0.384	0.334	0.376	0.395
	(0.61)	(0.53)	(1.09)	(1.18)	(0.57)	(0.49)	(0.84)	(0.88)
Global Risk Aversion								
VIX	0.008*	0.011**	−0.014***	−0.015***	0.005	0.007	−0.013***	−0.014***
	(1.77)	(2.03)	(−4.35)	(−4.59)	(1.15)	(1.45)	(−3.95)	(−4.11)
Current Account								
CA (% GDP)	0.001	0.001	0.001	0.001	−0.001	−0.001	−0.014	−0.016
	(0.24)	(0.19)	(0.34)	(0.29)	(−0.10)	(−0.09)	(−1.32)	(−1.54)
FX Arrangement	−0.019	−0.016	0.025***	0.018*	−0.017	−0.012	0.034***	0.027***
	(−1.38)	(−1.10)	(2.69)	(1.84)	(−1.10)	(−0.76)	(3.15)	(2.44)
Capital Controls	0.170	0.182	−0.924***	−0.994***	0.956**	0.988**	−0.124	−0.172
	(0.34)	(0.37)	(−2.75)	(−2.95)	(2.21)	(2.28)	(−0.44)	(−0.60)
Institutional Quality								
ICRG	−0.001	−0.001	0.001	0.001	−0.001	0.001	−0.001	−0.001
	(−0.47)	(−0.14)	(0.32)	(0.87)	(−0.21)	(0.46)	(−0.02)	(−0.90)
Unconv. Mon. Pol.								
US-QE1	0.155	0.176	0.007	−0.003	0.079	0.098	0.002	−0.002
	(1.33)	(1.50)	(0.09)	(−0.05)	(0.64)	(0.79)	(0.03)	(−0.03)
US-QE2	0.002	0.018	−0.015	−0.002	−0.102	−0.095	−0.055	−0.039
	(0.02)	(0.13)	(−0.16)	(−0.02)	(−0.69)	(−0.63)	(−0.57)	(−0.39)
US-QE3	0.154	0.128	0.110	0.164**	0.131	0.094	0.046	0.092
	(1.47)	(1.17)	(1.55)	(2.23)	(1.16)	(0.81)	(0.63)	(1.21)
ECB-QE	−0.053	−0.073	−0.011	−0.056	−0.105	−0.099	−0.018	−0.060
	(−0.33)	(−0.44)	(−0.10)	(−0.49)	(−0.59)	(−0.55)	(−0.16)	(−0.51)
Sovereign credit risk								
CDS Spread	0.001	0.001	0.001	0.001	0.001	0.001	−0.001	−0.001
	(0.72)	(0.74)	(0.38)	(0.18)	(0.61)	(0.66)	(−0.06)	(−0.23)
Other Controls								
FM Sophistication	−0.174	−0.175	−0.095	−0.097	−0.119	−0.118	−0.042	−0.040
	(−1.41)	(−1.42)	(−1.14)	(−1.17)	(−0.94)	(−0.93)	(−0.51)	(−0.48)
S&P GSCI Returns	0.543	0.626	0.777**	0.769**	0.602	0.665	0.649*	0.663*
	(0.99)	(1.14)	(2.11)	(2.07)	(1.04)	(1.15)	(1.70)	(1.73)
Countries	49	49	49	49	43	43	43	43
Obs	6370	6370	6370	6370	5590	5590	5590	5590
R^2	0.099	0.088	0.132	0.112	0.061	0.098	0.131	0.132
F-statistics	2.61	2.40	9.80	9.29	2.24	2.09	8.24	7.71
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]

Note: See notes of Table 6.

Table 8
Bond portfolio flows and changes in news pessimism and intensity indices.

	Full Sample				Reduced Sample			
	Inflows		Outflows		Inflows		Outflows	
	Model 3	Model 4	Model 3	Model 4	Model 3	Model 4	Model 3	Model 4
Intercept	−0.081	−0.083	−0.266	−0.271	−0.014	−0.012	−0.446	−0.455
	(−0.88)	(−0.90)	(−1.49)	(−1.51)	(−0.14)	(−0.12)	(−1.51)	(−1.54)
Lag($y_{i,t-1}$)	0.063***	0.064***	0.019	0.019	0.052***	0.053***	−0.001	0.001
	(4.88)	(4.94)	(1.46)	(1.43)	(3.88)	(3.91)	(−0.01)	(0.08)
Monthly % Changes in Pessimism and Intensity Indices								
Pessimism Changes	−0.291		−0.394		0.004		−2.008**	
	(−0.86)		(−0.60)		(0.01)		(−2.09)	
US Pessimism Changes	−0.966		3.483		−3.790**		3.016	
	(−0.65)		(1.20)		(−2.26)		(0.65)	
Intensity Changes^{negative}		−0.633		−0.293		−0.167		−2.677***
		(−1.64)		(−0.42)		(−0.48)		(−2.75)
US Intensity Changes^{negative}		−1.379		6.015		−6.511**		3.415
		(−0.51)		(1.15)		(−2.15)		(0.41)
Intensity Changes^{positive}		−0.486		0.141		−0.280		0.892
		(−1.36)		(0.20)		(−0.83)		(0.95)
US Intensity Changes^{positive}		0.842		−7.157		5.535*		−10.181
		(0.30)		(−1.32)		(1.76)		(−1.17)
Pull and Push Control Variables								
Return/yield measures								
Stock Returns Diff.	−0.048	−0.059	−0.543	−0.552	0.031	0.006	−1.661	−1.735
	(−0.11)	(−0.14)	(−0.64)	(−0.65)	(0.07)	(0.01)	(−1.29)	(−1.34)
Interest Rate Diff.	0.023*	0.024*	−0.045*	−0.045*	0.033**	0.034**	−0.042	−0.039
	(1.70)	(1.74)	(−1.68)	(−1.67)	(2.24)	(2.27)	(−1.00)	(−0.95)
Macro Indicators								
Unemp. Rate Dif.	0.003	0.003	0.009	0.009	0.002	0.002	0.008	0.008
	(1.19)	(1.11)	(1.44)	(1.42)	(0.59)	(0.59)	(0.87)	(0.84)
GDP Growth Diff.	0.375	0.296	0.215	0.184	0.538	0.486	0.186	−0.097
	(0.83)	(0.65)	(0.25)	(0.21)	(1.00)	(0.90)	(0.13)	(−0.07)
Global Risk Aversion								
VIX	−0.002	−0.002	−0.003	−0.003	−0.004	−0.004	−0.004	−0.005
	(−0.57)	(−0.56)	(−0.53)	(−0.54)	(−1.07)	(−1.11)	(−0.45)	(−0.52)
Current Account								
CA (% GDP)	−0.001	−0.001	−0.001	−0.001	−0.001	−0.001	−0.027	−0.028
	(−0.22)	(−0.34)	(−0.33)	(−0.35)	(−0.04)	(−0.06)	(−0.77)	(−0.79)
FX Arrangement	−0.009	−0.009	0.013	0.012	−0.022*	−0.022*	0.003	0.001
	(−0.89)	(−0.90)	(0.65)	(0.63)	(−1.76)	(−1.77)	(0.09)	(0.03)
Capital Controls	−0.189	−0.198	−1.297*	−1.299*	−0.645*	−0.647*	0.334	0.326
	(−0.50)	(−0.53)	(−1.78)	(−1.79)	(−1.89)	(−1.90)	(0.35)	(0.35)
Institutional Quality								
ICRG	0.003***	0.003***	0.001	0.001	0.005***	0.005***	0.001	0.001
	(3.25)	(3.29)	(0.50)	(0.42)	(3.92)	(3.94)	(0.00)	(0.15)
Unconv. Mon. Pol.								
US-QE1	0.117	0.124	0.223	0.230	0.117	0.124	0.229	0.266
	(1.23)	(1.29)	(1.34)	(1.38)	(1.23)	(1.29)	(0.87)	(1.00)
US-QE2	0.197*	0.192	−0.328	−0.329	0.197*	0.192	−0.343	−0.354
	(1.67)	(1.63)	(−1.60)	(−1.61)	(1.67)	(1.63)	(−1.05)	(−1.09)
US-QE3	−0.117	−0.117	−0.064	−0.064	−0.117	−0.117	−0.502**	−0.505**
	(−1.31)	(−1.31)	(−0.42)	(−0.42)	(−1.31)	(−1.31)	(−2.03)	(−2.05)
ECB-QE	−0.094	0.085	−0.094	−0.092	0.084	0.085	−0.251	−0.242
	(−0.40)	(0.61)	(−0.41)	(−0.39)	(0.60)	(0.61)	(−0.65)	(−0.62)
Sovereign credit risk								
CDS Spread	−0.001*	−0.001*	0.001	0.001	−0.001*	−0.001*	0.001	0.001
	(−1.68)	(−1.67)	(0.96)	(1.31)	(−1.68)	(−1.67)	(0.99)	(1.02)
Other Controls								
FM Sophistication	0.130	0.130	−0.029	−0.029	0.097	0.098	0.683***	0.686***
	(1.40)	(1.40)	(−0.16)	(−0.16)	(0.98)	(0.99)	(2.47)	((2.48)
S&P GSCI Returns	0.770*	0.754*	1.351*	1.346*	0.515	0.501	1.770	1.675
	(1.89)	(1.85)	(1.71)	(1.71)	(1.14)	(1.11)	(1.42)	(1.35)
Countries	49	49	49	49	43	43	43	43
Obs	6370	6370	6370	6370	5590	5590	5590	5590
R^2	0.012	0.013	0.045	0.055	0.012	0.013	0.045	0.055
F-statistics	2.67	4.01	3.68	3.09	3.41	3.12	1.29	1.46
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.017]	[0.018]

Note: Model 3 and Model 4 include monthly changes in pessimism and in intensity indices, respectively. Robust t-statistics are reported in parentheses (.), whereas F-statistics p-values are reported in square brackets [.]. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 9

Equity portfolio flows and changes in news pessimism and intensity indices.

	Full Sample				Reduced Sample			
	Inflows		Outflows		Inflows		Outflows	
	Model 3	Model 4	Model 3	Model 4	Model 3	Model 4	Model 3	Model 4
Intercept	0.039	0.035	0.371***	0.367***	0.036	0.033	0.308***	0.302***
	(0.32)	(0.29)	(4.47)	(4.42)	(0.26)	(0.25)	(3.44)	(3.37)
Lag($y_{i,t-1}$)	0.038***	0.037***	0.127***	0.127***	0.031**	0.031**	0.122***	0.122***
	(2.89)	(2:88)	(9.81)	(9.81)	(2.23)	(2.23)	(9.11)	(9.11)
Monthly % Changes in Pessimism and Intensity Indices								
Pessimism Changes	−0.363		−0.260		−0.325		−0.477	
	(−0.81)		(−0.86)		(−0.74)		(−1.63)	
US Pessimism Changes	2.377		4.597***		2.385		3.822***	
	(1.19)		(3.43)		(1.13)		(2.73)	
Intensity Changes^{negative}		−0.238		−0.048		−0.136		−0.272
		(−0.49)		(−0.15)		(−0.31)		(−0.93)
US Intensity Changes^{negative}		4.356		8.081***		3.707		6.783***
		(1.21)		(3.34)		(0.97)		(2.68)
Intensity Changes^{positive}		−0.140		0.374		−0.027		0.326
		(−0.30)		(1.17)		(−0.06)		(1.15)
US Intensity Changes^{positive}		−2.018		−7.506***		−2.481		−6.195***
		(−0.54)		(−2.99)		(−0.62)		(−2.36)
Pull and Push Control Variables								
Return/yield measures								
Stock Returns Diff.	−1.475***	−1.428***	0.373	0.393	−1.589***	−1.554***	0.362	0.385
	(−4.37)	(−3.47)	(0.95)	(1.00)	(−2.69)	(−2.62)	(0.93)	(0.99)
Interest Rate Spread	0.035*	0.034*	0.001	0.001	0.033*	0.033*	0.009	0.008
	(1.89)	(1.87)	(0.14)	(0.12)	(1.77)	(1.75)	(0.72)	(0.70)
Macro Indicators								
Unemp. Rate Dif.	−0.001	−0.001	0.001	0.001	−0.001	−0.001	0.002	0.002
	(−0.09)	(−0.07)	(0.32)	(0.30)	(−0.11)	(−0.09)	(0.74)	(0.73)
GDP Growth Diff.	0.399	0.402	0.476	0.502	0.428	0.423	0.409	0.416
	(0.66)	(0.67)	(1.18)	(1.24)	(0.63)	(0.62)	(0.91)	(0.93)
Global Risk Aversion								
VIX	0.008*	0.008*	−0.013***	−0.013***	0.005	0.006	−0.012***	−0.012***
	(1.82)	(1.71)	(−4.14)	(−4.08)	(1.14)	(1.20)	(−3.71)	(−3.74)
Current Account								
CA (% GDP)	−0.001	−0.001	−0.001	−0.001	−0.003	−0.003	−0.016	−0.015
	(−0.66)	(−0.91)	(−1.33)	(−1.31)	(−0.23)	(−0.23)	(−1.49)	(−1.48)
FX arrangement	−0.174	−0.169	0.022***	0.020***	−0.016	−0.016	0.027***	0.027***
	(−0.99)	(−1.07)	(2.83)	((2.43)	(−1.05)	(−1.03)	(2.62)	(2.73)
Capital Controls	0.177	0.174	−0.934***	−0.931***	0.970**	0.971**	−0.095	−0.095
	(0.35)	(0.39)	(−2.78)	(−2.77)	(2.25)	(2.24)	(−0.34)	(−0.34)
Institutional Quality								
ICRG	0.001	0.001	−0.001	−0.001	0.002	0.002	−0.001	−0.001
	(1.16)	(1.27)	(−0.73)	(−0.49)	(1.27)	(1.21)	(−0.69)	(−0.67)
Unconv. Mon. Pol.								
US-QE1	0.170	0.160	0.071	0.068	0.092	0.086	0.069	0.067
	(1.49)	(1.57)	(0.93)	(0.87)	(0.76)	(0.71)	(0.87)	(0.84)
US-QE2	0.032	0.038	−0.035	−0.033	−0.082	−0.077	−0.067	−0.064
	(0.23)	(0.27)	(−0.38)	(−0.35)	(−0.55)	(−0.52)	(−0.68)	(−0.66)
US-QE3	0.128	0.127	0.108	0.108	0.128	0.127	0.041	0.042
	(1.13)	(1.13)	(1.52)	(1.52)	(1.13)	(1.13)	(0.56)	(0.57)
ECB-QE	−0.09	−0.094	0.003	0.003	−0.122	−0.122	0.009	0.011
	(−0.59)	(−0.69)	(0.03)	(0.03)	(−0.69)	(−0.69)	(0.09)	(0.10)
Sovereign credit risk								
CDS Spread	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	(0.95)	(0.98)	(0.66)	(0.67)	(0.95)	(0.98)	(0.39)	(0.35)
Other Controls								
FM Sophistication	−0.167	−0.167	−0.089	−0.089	−0.106	−0.107	−0.032	−0.033
	(−0.93)	(−0.75)	(−1.08)	(−1.08)	(−0.84)	(−0.85)	(−0.39)	(−0.40)
S&P GSCI Returns	0.935***	0.953***	0.935***	0.953***	0.940*	0.961*	0.817**	0.845**
	(2.56)	(2.61)	(2.56)	(2.61)	(1.65)	(1.68)	(2.17)	(2.24)
Countries	49	49	49	49	43	43	43	43
Obs	6370	6370	6370	6370	5590	5590	5590	5590
R^2	0.069	0.079	0.241	0.241	0.069	0.079	0.241	0.241
F-statistics	2.42	2.31	5.20	7.03	2.00	1.77	7.80	7.03
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]

Note: See notes of Table 8.

Table 10
Bond portfolio flows and news sentiment and disagreement indices.

	Full Sample				Reduced Sample			
	Inflows		Outflows		Inflows		Outflows	
	Model 5	Model 6	Model 5	Model 6	Model 5	Model 6	Model 5	Model 6
Intercept	1.122	−3.343	2.829	4.230	2.976*	−3.783	2.785	6.161
	(0.71)	(−1.52)	(0.92)	(0.99)	(1.69)	(−1.53)	(0.57)	(0.90)
Lag($y_{i,t-1}$)	0.061***	0.063***	0.017	0.018	0.051***	0.052***	−0.001	−0.002
	(4.71)	(4.84)	(1.36)	(1.42)	(3.75)	(3.84)	(−0.06)	(−0.13)
Sentiment and Disagreement Indices								
Sentiment	0.258**		0.541***		0.105		1.027***	
	(2.25)		(2.43)		(0.87)		(3.08)	
US Sentiment	0.703*		−0.216		1.284***		−1.311	
	(1.72)		(−0.27)		(2.84)		(−1.05)	
Disagreement		0.044		0.539		−0.130		0.472
		(0.14))		(0.91)		(−0.44)		(0.58)
US Disagreement		5.011**		−2.038		7.227***		−2.446
		(2.17)		(−0.45)		(2.76)		(−0.34)
Ln(Total News)	−0.098	−0.132	0.021	−0.022	−0.135	−0.159	−0.222	−0.387
	(−0.66)	(−0.89)	(0.07)	(−0.07))	(−0.86)	(−1.02)	(−0.51)	(−0.90)
US Ln(Total News)	−0.197	−0.309	−0.805	−0.761	−0.589	−0.659	−0.781	−0.984
	(−0.50)	(−0.77)	(−1.06)	(−0.98)	(−1.35)	(−1.47)	(−0.65)	(−0.80)
Pull and Push Control Variables								
Return/yield measures								
Stock Returns Diff.	−0.058	−0.057	−0.499	−0.480	−0.013	−0.035	−1.529	−1.522
	(−0.13)	(−0.13)	(−0.59)	(−0.57)	(−0.03)	(−0.07)	(−1.19)	(−1.18)
Interest Rate Diff.	0.012	0.021	−0.055**	−0.044	0.022	0.032**	−0.057	−0.043
	(0.87)	(0.57)	(−1.99)	(−1.62)	(1.38)	(1.97)	(−1.33)	(−1.02)
Macro Indicators								
Unemp. Rate Dif.	0.003	0.004	0.008	0.009	0.001	0.002	0.007	0.008
	(1.00)	(1.14)	(1.36))	(1.46)	(0.41)	(0.53)	(0.74)	(0.83)
Growth Rate Diff.	0.350	0.321	0.141	0.134	0.502	0.484	0.073	0.001
	(0.77)	(0.71)	(0.16)	(0.15)	(0.94)	(0.90)	(0.05)	(0.00)
Global Risk Aversion								
VIX	−0.001	−0.001	−0.001	−0.001	−0.001	−0.001	−0.003	−0.001
	(−0.17)	(−0.06)	(−0.31))	(−0.34))	(−0.36)	(−0.30)	(−0.25)	(−0.06)
Current Account								
CA as % of GDP	0.001	0.001	−0.001	−0.001	−0.001	−0.002	−0.024	−0.031
	(0.17)	(0.17)	(−0.32)	(−0.34)	(−0.01)	(−0.15)	(−0.67)	(−0.87)
FX Arrangement	−0.012	−0.013	0.024	0.026	−0.023*	−0.026*	0.020	0.016
	(−0.93)	(−1.11)	(1.12)	(1.14)	(−1.75)	(−1.95)	(0.55)	(0.44)
Capital Controls	−0.188	−0.234	−1.241*	−1.259*	−0.617*	−0.648*	0.301	0.357
	(−0.50)	(−0.62)	(−1.70)	(−1.73)	(−1.81)	(−1.89)	(0.32)	(0.38)
Institutional Quality								
ICRG	0.003	0.003	0.003	0.004	0.004*	0.004*	0.004	0.005
	(1.31)	(1.27)	(0.64)	(1.11)	(1.87)	(1.77)	(0.65)	(0.89)
Unconv. Mon. Pol.								
US-QE1	0.139	0.175**	0.157	0.229	0.165*	0.170*	0.114	0.257
	(1.57)	(2.02)	(0.91)	(1.36)	(1.69)	(1.76)	(0.42)	(0.96)
US-QE2	0.084	0.119	−0.341*	−0.296	0.158	0.187	−0.335	−0.274
	(0.79)	(1.12)	(−1.65)	(−1.44)	(1.33)	(1.57)	(−1.02)	(−0.83)
US-QE3	−0.136*	−0.164**	−0.095	−0.113	−0.136	−0.161	−0.507**	−0.548**
	(−1.67)	(−1.98)	(−0.60)	(−0.70)	(−1.47)	(−1.63)	(−1.99)	(−2.12)
ECB-QE	0.063	0.028	−0.069	−0.116	0.109	0.083	−0.328	−0.341
	(0.50)	(0.22)	(−0.27)	(−0.48)	(0.76)	(0.58)	(−0.83)	(−0.86)
Sovereign credit risk								
CDS Spread	−0.001***	−0.001**	0.001	0.001*	−0.001**	−0.001*	0.001	0.001
	(−2.42)	(−2.06)	(1.38)	(1.70)	(−2.04)	(−1.83)	(0.55)	(0.89)
Other Controls								
FM Sophistication	0.121	0.126	−0.041	−0.021	0.086	0.090	0.652***	0.691***
	(1.31)	(1.35)	(−0.23)	(−0.12)	(0.86)	(0.90)	(2.36)	(2.50)
S&P GSCI Returns	0.597	0.812**	1.097	1.409*	0.424	0.624	1.689	2.127*
	(1.44)	(1.99)	(1.37)	(1.78)	(0.93)	(1.38)	(1.33)	(1.70)
Countries	49	49	49	49	43	43	43	43
Obs	5,894	5,894	5,894	5,894	5,565	5,565	5,565	5,565
R^2	0.008	0.005	0.008	0.006	0.004	0.003	0.004	0.001
F-statistics	3.67	3.31	1.55	1.30	3.46	3.27	1.50	1.07
	[0.000]	[0.000]	[0.052]	[0.163]	[0.000]	[0.000]	[0.065]	[0.371]

Note: Model 5 and Model 6 include news sentiment and news disagreement indices respectively. Robust t-statistics are reported in parentheses (.), whereas F-statistics p-values are reported in square brackets [.]. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 11
Equity portfolio flows and news sentiment and disagreement indices.

	Full Sample				Reduced Sample			
	Inflows		Outflows		Inflows		Outflows	
	Model 5	Model 6	Model 5	Model 6	Model 5	Model 6	Model 5	Model 6
Intercept	2.316	−1.465	−3.472***	0.394	2.964	−0.361	−2.854*	0.078
	(1.10)	(−0.50)	(−2.44)	(0.20)	(1.33)	(−0.12)	(−1.94)	(0.04)
Lag($y_{i,t−1}$)	0.036***	0.037***	0.125***	0.125***	0.029**	0.029**	0.119***	0.119***
	(2.79)	(2.86)	(9.61)	(9.65)	(2.15)	(2.21)	(8.89)	(8.93)
Sentiment and Disagreement Indices								
Sentiment	0.251*		0.321***		0.256		0.410***	
	(1.64)		(3.12)		(1.63)		(4.06)	
US Sentiment	0.927*		−0.966***		0.822		−0.924***	
	(1.70)		(−2.63)		(1.44)		(−2.45)	
Disagreement		−0.451		0.374		−0.343		0.450*
		(−1.11)		(1.36)		(−0.91)		(1.81)
US Disagreement		4.183		−3.893*		3.533		−2.727
		(1.36)		(−1.88)		(1.07)		(−1.25)
Ln(Total News)	−0.027	−0.064	−0.205	−0.239*	0.055	0.0122	−0.224*	−0.286**
	(−0.14)	(−0.33)	(−1.54))	(−1.80)	(0.28)	(0.06)	(−1.70)	(−2.19)
US Ln(Total News)	−0.487	−0.472	1.019***	0.973***	−0.704	−0.666	0.859***	0.762**
	(−0.93)	(−0.88)	(2.90)	(2.71)	(−1.27)	(−1.18)	(2.36)	(2.04)
Pull and Push Control Variables								
Return/yield measures								
Stock Returns Diff.	−1.433***	−1.409***	0.481	0.502	−1.536***	−1.534***	0.477	0.475
	(−2.47)	(−2.42)	(1.23)	(1.28)	(−2.60)	(−2.60)	(1.23)	(1.22)
Interest Rate Diff.	0.023	0.033*	−0.002	−0.001	0.023	0.032*	0.002	0.006
	(1.21)	(1.76)	(−0.18)	(−0.03)	(1.17)	(1.69)	(0.18)	(0.49)
Macro Indicators								
Unemp. Rate Diff.	−0.001	−0.001	0.001	0.001	−0.001	−0.001	0.002	0.002
	(−0.22)	(−0.10)	(0.34)	(0.40)	(−0.23)	(−0.13)	(0.68)	(0.77)
Growth Rate Diff.	0.329	0.311	0.478	0.471	0.347	0.336	0.396	0.368
	(0.55)	(0.52)	(1.18)	(1.16))	(0.51)	(0.50)	(0.88)	(0.82)
Global Risk Aversion								
VIX	0.009**	0.013**	−0.015***	−0.015***	0.007	0.007	−0.014***	−0.013***
	(1.96)	(2.05)	(−4.60)	(−4.51)	(1.40)	(1.49)	(−4.12)	(−3.91)
Current Account								
CA as % of GDP	0.0001	0.001	0.001	0.001	−0.001	−0.002	−0.017	−0.021*
	(0.22)	(0.19)	(0.27)	(0.24)	(−0.04)	(−0.17)	(−1.58)	(−1.85)
FX Arrangement	−0.016	−0.018	0.018*	0.018*	−0.012	−0.015	0.026***	0.026***
	(−1.09)	(−1.24)	(1.84)	(1.86)	(−0.75)	(−0.91)	(2.45)	(2.38)
Capital Controls	0.193	0.168	−0.992***	−0.985***	0.993**	0.993**	−0.169	−0.145
	(0.39)	(0.34)	(−2.95)	(−2.92)	(2.29)	(2.29)	(−0.59)	(−0.51)
Institutional Quality								
ICRG	0.001	0.001	−0.001	−0.001	0.001	0.002	−0.001	−0.001
	(0.06)	(0.35)	(−0.88)	(−0.50)	(0.39)	(0.73)	(−0.90)	(−0.55)
Unconv. Mon. Pol.								
US-QE1	0.168	0.183	−0.002	0.053	0.091	0.103	−0.002	0.062
	(1.43)	(1.58)	(−0.04)	(0.69)	(0.74)	(0.84)	(−0.03)	(0.77)
US-QE2	0.008	0.052	−0.001	0.009	−0.104	−0.065	−0.037	−0.021
	(0.06)	(0.37)	(−0.02)	(0.10)	(−0.69)	(−0.43)	(−0.37)	(−0.22)
US-QE3	0.128	0.118	0.163**	0.154**	0.093	0.084	0.091	0.075
	(1.17)	(1.07)	(2.22)	(2.07)	(0.80)	(0.71)	(1.19)	(0.96)
ECB-QE	−0.055	−0.098	−0.062	−0.073	−0.087	−0.109	−0.069	−0.069
	(−0.33)	(−0.59)	(−0.55)	(−0.65)	(−0.48)	(−0.60)	(−0.58)	(−0.58)
Sovereign credit risk								
CDS Spread.	0.001	0.001	0.001	0.001	0.001	0.001	−0.001	0.001
	(0.75))	(1.13)	(0.14))	(0.42)	(0.68)	(1.01)	(−0.29)	(0.05)
Other Controls								
FM Sophistication	−0.175	−0.176	−0.097	−0.085	−0.120	−0.114	−0.041	−0.023
	(−1.41)	(−1.42)	(−1.17)	(−1.02)	(−0.95)	(−0.90)	(−0.50)	(−0.28)
S&P GSCI Returns	0.586	0.842	0.767**	0.847**	0.631	0.890	0.662*	0.787**
	(1.06)	(1.55)	(2.07)	(2.32)	(1.09)	(1.56)	(1.73)	(2.09)
Countries	49	49	49	49	43	43	43	43
Obs	5,894	5,894	5,894	5,894	5,565	5,565	5,565	5,565
R^2	0.009	0.006	0.032	0.031	0.011	0.008	0.031	0.026
F-statistics	2.41	2.15	9.34	9.01	2.11	1.85	7.81	7.18
	[0.000]	[0.001]	[0.000]	[0.000]	[0.002]	[0.010]	[0.000]	[0.000]

Note: See notes of Table 10.

4.2. Changes in news pessimism and intensity

We now consider the role of changes in the news pessimism and intensity indices. The results are presented in Tables 8 and 9. It can be seen that equity flows are more responsive to changes in news than bond flows in the full sample. When dropping the financial centres, an impact of news on both types of flows is detected. Further, in general (i) changes in US news have a bigger impact than worldwide news on portfolio flows, and (ii) the effects of both US and wolrdwide news on equity inflows into the US in both samples seem to be relatively weak.

More specifically, the results suggest that neither bond inflows nor outflows (Table 8) are responsive to either news pessimism or intensity changes in the full sample. However, if the financial centres are dropped from the sample, US pessimism changes are found to affect bond inflows (-3.790), and worldwide pessimism changes to affect bond outflows (-2.008). As for the impact of intensity changes, US positive news changes appear to have a positive effect on bond inflows (5.535), whilst US negative news changes seem to have a negative one (-6.511). Worldwide positive intensity changes are not found to affect inflows but there is a sizeable impact of worldwide negative intensity changes on bond outflows (-2.677). Overall these findings are consistent with the earlier ones suggesting that US (worldwide) news drive bond inflows into (outflows from) the US.

As for equity flows (Table 9), inflows do not seem to be affected by news pessimism changes, whilst US news pessimism does affect outflows (4.597). These results hold for both the full sample and the sub-sample without the financial centres. Equity inflows are not affected by news intensity changes either (in both the full sample and the subsample previously defined). On the contrary, equity outflows are affected by US positive (-7.506) and negative (8.081) news intensity changes, with both effects being smaller in the sub-sample without the financial centres. Overall, these findings indicate that equity outflows from the US are only driven by US news. The weak impact of news on equity inflows towards the US is consistent with our earlier findings.

4.3. News sentiment and disagreement

Tables 10 and 11 present the results concerning the effects of news sentiment and disagreement on bond and equity flows, respectively. The estimated coefficients suggest that news sentiment in the US and the other countries affect their bond flows (Table 10). Specifically, an increase in the US (other countries') news sentiment index results in an increase in inflows to (outflows from) the US vis-a-vis the counterpart countries. News sentiment in other countries also affects bond inflows into the US, but only in the full sample including the financial centres. These findings provide further confirmation that US (worldwide) news drive bond inflows to (outflows from) the US. Concerning the effects of news disagreement on bond flows (Table 10), we find that an increase in the US news disagreement index induces bond inflows into the US, whereas the index for the counterpart countries has no effect on bond flows. Moreover, bond outflows do not seem to be driven by news disagreement.

The impact of news sentiment on cross-border equity flows also appears to be different (Table 11). An increase in this index in the other countries (US) leads to higher (lower) equity outflows from the US towards these countries, in both the full sample and the sub-sample without the financial centres. An increase in the US news sentiment index also results in equity inflows into the US, but the corresponding parameter is only significant in the full sample. These results confirm our earlier findings that the impact of news on equity inflows into the US is weak and that equity outflows from the US are driven by both US and worldwide news. Instead the effects of news disagreement on equity flows seem relatively weak. For instance, the US news disagreement index has a negative effect on equity outflows from the US, but only in the full sample. In the smaller sample excluding the financial centres an increase in the news disagreement index in the other countries leads to equity outflows, but the corresponding coefficient is only significant at the 10% level.

On the whole, we detect a role for news sentiment in the US and the other countries in driving both bond inflows and outflows as well as equity outflows (but not inflows) as found earlier, whereas US news disagreement only affects bond inflows into the US. These results are rather similar for both the full sample and the sample without the financial centres and indicate very clearly the importance of news as a driver of cross-border portfolio flows, especially in the case of bond inflows into and outflows from the US, and of equity outflows from (but not inflows into) the US. In addition, they suggest that US (worldwide) news play a leading role in driving bond inflows into (outflows from) the US, whereas equity outflows from the US are affected by both US and worldwide news.

4.4. Pull and push control variables

The impact of pull and push factors on cross-border portfolio flows is broadly similar in the various models estimated.

The equity return differential has a strong negative effect on equity inflows towards the US, in both the full sample and the smaller sample without the financial centres. This finding is consistent with the empirical evidence presented by Hau and Rey (2004), who documented, in the case of the five largest equity markets outside the US (namely France, Germany, Japan, Switzerland and the UK), a portfolio rebalancing effect, with investors scaling down their foreign equity holdings in order to reduce their exchange rate risk exposure.

The interest rate spread affects positively (negatively) bond inflows into (outflows from) the US in some cases, implying that a higher US interest rate relative to the counterpart countries increases bond inflows to (decreases bond outflows from)

the US vis-a-vis these countries. However, the impact on outflows is insignificant in the sample without the financial centres. An increase in the VIX volatility index seems to increase (dampen) equity inflows to (outflows from) the US, but the impact on inflows is significant only in the full sample. The effect on bond flows, by contrast, is insignificant. The VIX volatility index is considered an important push factor in capital flows dynamics. Overall, this finding is broadly in line with the empirical findings of Fratzscher (2012) and Rey (2015), although the latter also reports a negative association between VIX movements and portfolio debt inflows.

As for the effects of capital controls, they appear to be sensitive to the chosen sample of countries: they reduce (increase) equity outflows in the full sample (equity inflows in the sample without the financial centres) and reduce bond outflows (bond inflows) in the full sample (the sample without the financial centres). On the whole, these results highlight the role of financial centres in the event of capital flights resulting from the imposition of capital controls. Regarding the effects of the exchange rate regime, it appears that they are significant especially in the case of the sample without the financial centres, where more flexible exchange rates seem to dampen (increases) bond inflows to (equity outflows from) the US vis-a-vis the other countries in the reduced sample (in both the reduced and full samples).

The CDS spread negatively affects bond inflows towards the US, that is, a higher US CDS spread relative to that of the counterpart countries dampens bond inflows into the US from these countries; this effect is robust across the two samples considered.

As for the effects of the Fed's QE, we find, in some cases, that the first episode of QE resulted in an increase in bond inflows towards the US. The third episode of QE also seems to have had an effect in some cases, although the results are not consistent across the two samples. For example, in the full sample equity outflows (bond inflows) increased (decreased) during that period, whereas in the smaller sample without the financial centres bond outflows were reduced. Overall, these findings are broadly in line with the evidence in Fratzscher et al. (2018) concerning the effects of the Fed's QE on daily equity and bond portfolio flows over the period 1 January 2008 to 31 December 2012. The ECB's asset purchase programmes, on the other hand, do not seem to have had an effect on cross-border flows.

Concerning the impact of financial market sophistication, this is found to be significant in the sample without the financial centres and only in the case of bond outflows, which are higher from the US towards countries with more sophisticated financial markets compared to those towards developing and emerging market countries with less developed bond markets. An increase in commodity prices increases both bond and equity outflows, this effect being stronger in the case of the latter in both samples.

Finally, the other control variables do not appear to play much of a role. Specifically, institutional quality seems to increase bond inflows only in the sample without the financial centres and at the 10% significance level, while the macroeconomic indicators (i.e., industrial production growth differential, unemployment rate differential, and other countries' current account balance as a percentage of GDP) do not appear to be significant in any of the estimated models.

All in all, these findings confirm the responsiveness of portfolio flows to a variety of pull and push factors. Different types of flows (inflows and outflows) are found to react to different pull and push factors, which reflects their sensitivity to different types of shocks (domestic and global).

5. Conclusions

The empirical literature on the determinants of cross-border portfolio flows is extensive, and has analysed in great detail the relative importance of various so-called "push" and "pull" factors as drivers of these flows (see, e.g., Portes and Rey, 2005; Fratzscher, 2012; Sarno et al., 2016). Surprisingly, though, not much attention has been paid to the possible role of news, despite the substantial body of evidence on the impact of media coverage of economic events on a wide range of financial variables that has been produced in recent years (see Bukovina, 2016).

The present study addresses this issue by examining the dynamic linkages between portfolio flows and various news indices based on both "positive" and "negative" news headlines collected from Bloomberg as well as a comprehensive set of push and pull factors. The monthly panel examined comprises 49 developed, emerging and developing economies in addition to the US (the "home economy") and covers the period from January 2007 to October 2017; the econometric model includes fixed effects. To check robustness, two sets of estimates are obtained, i.e. for the full set of countries and also for a subset not including six countries that can be considered financial centres.

The empirical analysis produces a number of interesting findings shedding new light on the drivers of portfolio flows. First, it provides some thorough evidence on the important role played by the news variables. More specifically, it shows that news pessimism and intensity affect both bond and equity flows, with US (worldwide) news playing a leading role in driving bond inflows into (outflows from) the US; by contrast, the impact of news on equity inflows towards the US is found to be relatively weak, but both US and worldwide news are found to drive equity outflows from the US towards the rest of the world. A broadly similar conclusion is reached when changes in news pessimism and intensity are considered instead, but the role of US news become more evident in this case. These results are also confirmed by the impact of news (average) sentiment. Further, only US news disagreement has a significant effect, and only on bond inflows into the US. Most results are not significantly affected by the exclusion of the six financial centres from the full sample, though in a number of cases the estimated coefficients are bigger in the subsample. On the whole, it is clear that news are an important determinant (in addition to push and pull factors) of cross-border portfolio flows, especially in the case of both bond inflows and outflows

into and from the US and of equity outflows from the US. As for the push and pull factors themselves, in most cases our results confirm those previously reported in the literature. Equity return differentials, interest rate spreads, the VIX index, capital controls, exchange rate regimes, CDS spreads, QE episodes, financial development and commodity prices all have significant effects, generally with the expected signs. Only a few control variables, such as institutional quality, industrial production growth differentials, umemployment rate differentials and current account balance, appear not to be significant.

Our empirical results are important in various respects. For example, they complement the findings of previous studies in financial economics showing that sentiment indicators that are extracted from news stories and social media convey valuable information that can be used to predict asset prices and trading volumes. Our analysis provides convincing evidence that news media coverage also affects cross-border portfolio flows.

Moreover, they also suggest that news are another possible explanation for the home bias often exhibited by investors, since sentiment indicators extracted from domestic and foreign news media stories are found to have a significant impact on cross-border portfolio flows. This is consistent with the evidence presented by Audrino and Tetereva (2019), who documented the existence of news sentiment spillovers across different industries and countries.

Future research could consider the impact of news media coverage on portfolio flows allowing for possible asymmetries between different phases of the business cycle (expansions versus recessions).

Appendix A

In this appendix, we present a selection of news (i.e., "Economic outlook", "Business outlook", "Stock Market", "Corporate bond", and/or "Unemployment") concerning some countries in our sample and classified as "negative". Note that owing to space constraints only the first two/three paragraphs extracted from each news article are reported.

1.

Country	France
Source	Economist Intelligence Unit
Date	Aug 23, 2013
News	Economics
Title	Unemployment nears record-high levels

"Following the news at the end of July that unemployment had reached a new record high, France's president, François Hollande, announced a stepping-up of state-subsidised employment schemes. While these schemes temporarily relieve unemployment and help job seekers to get back into the labour market, their success in terms of a durable reduction of unemployment remains uncertain. In the second quarter of 2013 employment in the business sector declined for the fifth quarter in a row, according to provisional estimates by INSEE, the national statistics institute. After rising from early 2010 to early 2012, the number of employed persons dropped continuously, and by the equivalent of 0.9% of employment in the business sector, between the first quarter of last year and the second quarter of 2013.Although in the past year or so fewer jobs have been lost than at the peak of the 2008 09 global financial crisis, employment at the end of June 2013 remained much lower than in the first quarter of 2008, and the unemployment rate stayed considerably higher. Between the first quarter of 2008 and the second quarter of 2013 some 501,600 jobs were lost in the business sector, equivalent to 3.1% of total private employment......"

2.

Country	Germany
Source	Growth from Knowledge
Date	August 27, 2014
News	Business/Economics
Title	German Consumer Confidence Drops as Political Woes Damp Outlook

"German consumer confidence index will fall to 8.6 in September from revised 8.9 in August, GfK says in report. Uncertainty about German economic outlook has "increased quite considerably" as tensions in Iraq, Israel and Ukraine escalate. GfK measure of economic expectations falls to 10.4 in August from 45.9 in July, recording biggest monthly decline since survey began in 1980. Income-expectations gauge falls to 50.1 from 54.7 whereas willingness-to-buy falls to 49.3 from 51.0……..."

3.

Country	South Korea
Source	Inside Korea Column
Date	August 20, 2014
News	Business
Title	Won Drops; Authorities May Act

"Won falls 0.5%, most in two weeks, to 1,022.68 per dollar at close; nation's short-term external debt rose to $131.8b at end-June, most since end-Sept. 2012. Korean authorities will likely act to contain new won gains amid subdued exports to mainland China, Standard Chartered wrote in note yesterday. Increased FX hedging demand due to expectations of KRW appreciation from exporters and asset managers resulted in higher short-term external borrowing, especially in foreign bank branches in Korea, Nomura writes in note. Authorities will remain vigilant on won movements, as further appreciation would support an increase in external debt……

4.

Country	Spain
Source	Economist Intelligence Unit
Date	July 25, 2015
News	Economic outlook
Title	Economic outlook

"After more than 15 years of uninterrupted GDP growth, the Spanish economy suffered a severe recession in 2009 and is expected to suffer another one in 2012 and 2013. Despite high GDP growth during the boom years of the decade up to 2008, productivity growth-the most important indicator determining long-term prosperity-was among the lowest in the OECD. This was partly because of high growth in employment, much of it low-skilled or in labour-intensive activities such as construction. Productivity growth improved in 2008–11, though mainly owing to significant declines in employment levels. Spain's membership of an expanding EU offers a number of challenges from an economic standpoint. Many of the labour-intensive manufacturing industries in which Spain has specialised - notably car making - are migrating to lower-wage economies in the new member states of central and eastern Europe….."

5.

Country	Brazil
Source	Bloomberg
Date	October 9, 2015
News	Stock Markets
Title	Brazil Financial Markets Fall After Debt Rating Downgrade

"Brazil's financial markets fell on Thursday in the aftermath of credit agency Standard & Poor's downgrading the country's sovereign debt to "junk" status. By the end of the day, the Brazilian real fell 1.34 percent to 3.85 per U.S. dollar. It would have dropped even further if the Central Bank hadn't intervened by selling some $1.5 billion on the spot market. The benchmark Bovespa stock index dropped down 0.33 percent. Finance Minister Joaquim Levy said at a news conference that Brazil must reduce expenditures and increase taxes "to bring about more security and tranquility to the economy. University of Sao Paulo economics Professor Rafael Paschoare told the G1 news portal that the downgrade shows that credit rating agencies no longer believe the government when it says things well get better. For Roberto Luis Troster, also of the University of Sao Paulo, the downgrade represents the loss of Brazil's credibility." The downgrade, while widely expected, came earlier than many analysts forecast and arrives at a time of extreme volatility for the Brazilian economy, with inflation hovering around 10 percent and unemployment the highest it has been in decades…."

6.

Country	Singapore
Source	Business Times
Date	August 11, 2016
News	Economics
Title	Singapore narrows 2016 GDP growth forecast

"In line with the weaker global growth outlook, the Singapore economy is now expected to expand 1–2 per cent this year, after the Ministry of Trade and Industry (MTI) on Thursday narrowed down its previous growth forecast of 1–3 per cent. The new official projection takes into account additional downside risks such as Brexit-related uncertainties, and the potential for spiking debt defaults in China amid rising corporate credit levels there. The ministry also warned that manufacturing sector's improvement may not be sustained in light of sluggish global economic conditions, especially since the recovery has been owed to "pockets of strength" in segments like semiconductors and biomedical manufacturing......."

7.

Country	Argentina
Source	Economist Intelligence Unit
Date	December 7, 2015
News	Economics
Title	Argentina economy outlook

"Argentina's wealth of natural resources, large domestic market with high per-head incomes relative to much of the rest of the region, and proximity and preferential access to the large Brazilian market represent attractive long-term opportunities for foreign investors. However, the prospect of a difficult economic adjustment to rein in inflation will deter investment in the very short term, at least as businesses wait on the sidelines to ensure that Mr. Macri has the political capital to push through politically difficult adjustments. As in much of the region, income inequality and poverty remain relatively high. This is not reflected in official poverty statistics, which have showed a continued decline in the poverty rate, defined as being unable to afford the basic food basket and a narrow range of services, to just 7% in 2012 (latest available data). However, these data are based on widely discredited inflation statistics that overstate real incomes by a substantial margin....."

8.

Country	India
Source	Bloomberg
Date	January 13, 2016
News	Business/Economy
Title	India economy: Industrial output drops in November

"According to the Central Statistical Office (CSO), industrial output fell by 3.2% year on year in November, down from growth of 9.9% in October. The decline in November is the first annual drop in 13 months and the biggest since October 2011. Output in 17 out of 24 major manufacturing categories fell in November. Overall manufacturing output fell 4.4% year on year, even as mining and electricity output rose by 2.3% and 0.7% respectively. The drop in manufacturing was led by a sharp decline in capital goods output (24.4%), a proxy for investment demand. Over the forthcoming months the conditions for faster manufacturing growth are set to remain mixed. Global trade remains sluggish, India's exports fell across 2015 in value terms and domestic consumer prices hit a 14-month high in December. A failure to pass significant legislation at the winter session of parliament to improve the business environment also weighs on investment sentiment........"

9.

Country	Thailand
Source	Bangkok Post
Date	December 23, 2015
News	Business
Title	Thailand economy: Banking profits fade

"Data released by the Bank of Thailand (BOT) showed that Thai banks recorded a decline in net profits in the third quarter of 2015. The performance of Thailand's four biggest banks - Siam Commercial Bank, Krungthai Bank, Bangkok Bank and Kasikorn Bank - has weakened considerably in 2015. Together, the "big four" account for more than 60% of total commercial bank deposits. Their woes are in the main a function of the weak domestic economy, and point to future weakness in domestic demand. Overall it is the uncertain domestic outlook that has weighed on commercial banks' shares and performance. The demand for credit from struggling small and medium-sized enterprises (SMEs) and indebted consumers has been rising...."

10.

Country	Italy
Source	Bloomberg
Date	July 10, 2012
News	Economics
Title	Industrial output remains weak

"The seasonally adjusted industrial production index published by Istat (the national statistics office) increased by 0.8% month on month in May, but on a calendar-adjusted basis, it fell by 6.9% year on year. In the first five months of 2012, production declined by 6.7% year on year. Italian industrial output (excluding construction activity) has been quite volatile in the 12 months to May, but the underlying trend has been firmly downwards. The seasonally adjusted industrial output index rose by 0.8% in May, only partly reversing a monthly decline of 2% in April. In the three months to May, it was 1.9% lower than in the previous three-month period from December 2011 to February 2012. Adjusted for calendar effects, output declined on a year-on-year basis for the ninth consecutive month. Production of consumer durable goods fell by 11.9% year on year, reflecting the impact on consumer spending and sentiment of a steady deterioration in the Italian labour market over the last 12–18 months and tight credit conditions. In the same period, investment and intermediate goods output fell by 4.2% and 8.8%, respectively….."

11.

Country	Poland
Source	Economist Intelligence Unit
Date	July 9 2012
News	Economics
Title	Economic growth loses momentum

"The latest purchasing managers' index (PMI), compiled by Markit, and business and consumer surveys published by the GUS and the European Commission in late June suggest that economic growth is continuing to lose momentum. The latest survey of purchasing managers in manufacturing, released on July 2nd, shows overall activity falling month on month in June for the third successive month-down from 48.9 in May to 48 (below 50 denotes a contraction) - with demand weakening in the domestic and export markets. A significant worsening in sentiment since the start of 2012 is apparent in construction and retail, which supported the economy during the financial crisis in 2008–09. The downturn in construction is due to the completion of projects linked to Euro 2012. This makes the sector more reliant on private sources of investment, which is uncertain amid deterioration in external economic conditions arising from the euro zone crisis…."

12.

Country	Japan
Source	Bloomberg
Date	July 9, 2012
News	Economics
Title	Japan economy: The current-account surplus falls sharply

"Japan's current-account surplus fell by a non-seasonally adjusted 62.6% year on year in May, to ¥215bn (US$2.7bn). The surplus was 35.6% smaller compared with April. The merchandise trade deficit expanded by 10% to ¥848bn in May, according to data released on July 9th. This was largely responsible for the sharp decline in the current-account surplus for that month. A surge in imports is being driven by increased energy imports to compensate for the fact that almost all of Japan's nuclear power plants are offline. In year-on-year terms, the income surplus fell by 11.7% in May. Investment income is being broadly supported by Japanese companies' moves to locate production overseas, and by the country's large stock of outward portfolio investment. However, the income balance has been negatively affected in recent months by the relative strength of the yen. The transfers deficit widened by 51.9%, albeit from a low base……"

13.

Country	Hong Kong
Source	Economist Intelligence Unit
Date	July 12 2012
News	Economics
Title	Hong Kong economy: A red herring?

"Responding to questions from legislators on July 11th, Hong Kong's new secretary for transport and housing, Anthony Cheung, providedsome details on the government's new property sector policies. This was the most detailed clarification of official policy on housing since the new chief executive, Leung Chun-ying, took office at the start of July. Mr. Cheung emphasised the need to dovetail policies with evolving demand trends in the market. Given that sales are still weak, this may suggest that the government will adopt a gradualist approach to its housing reforms over the next few years. Hong Kong's property market has struggled since early 2011, as credit conditions in mainland China tightened. The number of agreements for sale or purchase of building units has been falling year on year for most of the past 18 months; in June 2012 sales were down by 27.7% compared with the same month in 2011. Given that many local housing purchases (particularly at the higher end of the market) are made by mainland Chinese residents, monetary and credit policies within China will be an important driver of the territory's housing demand in 2012–16......."

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