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The short- and long-run implications of financial integration on macroeconomic stability

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"*Two roads diverged in a wood, and I-*
I took the one less travelled by,
And that has made all the difference."

Frost R.

Abstract

In this work I review the main theoretical and empirical results on the relationship between financial integration and macroeconomic stability, namely the volatility of consumption growth. I construct two robust price-based indicators of financial integration. Additionally, I evaluate the implication of financial integration using the Diebold and Yılmaz (2012) spillover index as measure of financial integration. Empirical analysis is run on two country-groups (i.e., developed and emerging countries), using both time-series and panel method. I also evaluate the short- and long-run implications of financial integration by estimating a pooled mean group regression model. The main results are followed by a battery of robustness checks. Empirical evidence suggests that the link between consumption volatility and financial integration is weak and not robust to alternative indicators and methodologies.

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1 Introduction

Risk-sharing is a key concept in macroeconomics. It represents the ability of an economic agent of insuring idiosyncratic risks. In a general equilibrium framework full risk-sharing is attained when in a market there exists at least one state-contingent asset for each state of the world and the market is thus said to be complete (Arrow, 1964). In a such situation the only source of risk is global risk, which is not insurable by definition, as it affect all agents. Despite a large part of the literature focuses on the equity market, the latter is only one of the risk-sharing channels. Idiosyncratic risks are insurable, for instance, through the credit and fiscal channels as well. All these risk-sharing mechanisms become crucial in economic unions, as in the European Union. The introduction of the euro itself should lead to increased risk-sharing and thus to a drop in aggregate consumption volatility. Cimadomo et al. (2018) and De Vijlder (2018) show that risk-sharing channels have different contributions (even negative) on consumption smoothing. Nevertheless, both suggest to work on capital and financial markets integration, as well as completing banking unions. Indeed, these are prerequisite for efficient private risk-sharing. In this work, however, I will primarily focus on the equity market as provider of risk-sharing opportunities.

The last decades have been characterized by rising attention on financial integration and its implications on real economy. In particular, attention has been paid to the welfare gains of financial integration (in terms of improved consumption smoothing) and on productivity increases following a rise in cross-country portfolios flows (see in this respect the work of Pommeret and Epaulard (2005)). A strand of the literature focused on international business cycle (IBC) provided theoretical evidence of the welfare gains from financial integration on macroeconomic stability. Among others, Suzuki (2004), Evans and Hnatkovska (2007a) and Levchenko (2005) agree on a well-known macroeconomic fact: under complete markets (or in other words, under full financial integration) all idiosyncratic shocks are insured and a drop in consumption volatility should be observed. This work is more closely related to this latter strand of literature. In particular I focus on the welfare gains of financial integration in terms of reduced consumption volatility.

Although the theory is peaceful with respect to this evidence, there is no strong empirical evidence of improved consumption smoothing following a rise in financial integration. For instance, Kose et al. (2003) reports financial integration to be detrimental for consumption smoothing, whereas Neaime (2005) and Kose et al. (2009) find it negatively associated to macroeconomic stability.

So far, many measures of financial integration have been proposed. These can be distinguished in two categories, namely *de jure* and *de facto* measures. The former ones focus on legal restrictions on trade and financial flows across countries. Differently, *de facto* measures rely on prices (eg. equity market prices) and financial flows. In other words, this category of indicators is representative of how integration is exploited by agents. Among *de facto* measures of financial integration two subcategories can be identified: on the one hand, quantity-based indicators are those which rely on portfolios flows across countries. On the other hand, indicators relying on equity (or bond) prices enter the category of the price-based. With respect to the latter category, a strand of literature focused on constructing robust price-based indicators (see Pukthuanthong and Roll (2009); Volosovych (2011) among others). Measuring financial integration consistently is of first order importance to address its implication on risk-sharing.

Empirical attempts to link consumption (or income) volatility and financial integration mostly relied on standard time-series and (fixed effect) panel regression models. Although the implementation of these latter models is simple and straightforward to interpret, they require the assumption of poolability. Put differently, it is necessary to assume that the effects of financial integration on consumption smoothing are the same among all countries in the sample. Actually, Guiso et al. (2016) provide theoretical evidence of the fact that cultural differences can slow down the process of integration.

Moreover, to the best of my knowledge, there is no empirical work addressing the short- and long-run implications of financial integration on macroeconomic stability, despite the IBC literature shows different patterns and conclusions for the financial integration effects on consumption volatility in the short- and long-run. Specifically, Evans and Hnatkovska (2007a) and Levchenko (2005) both suggest that equity market integration is beneficial for welfare only when the process is complete, but might imply losses in the short-run.

The questionable assumption of poolability and the wish to address the effects of financial integration on macroeconomic stability both in the short- and long-run forced me to look at more sophisticated panel regression models. The contribution of Pesaran et al. (1999) perfectly fits my intent. First, the dynamic fixed effect, mean group and pooled mean group allow for different degrees of poolability. Second, as these models can be written in an error correction form, such that it is possible to account for cointegration among variables, the differences between short- and long-run can be disentangled.

The organization of this work is straightforward. In Section 2 I review the main works on financial integration. I describe the results of theoretical models first, then I proceed in analysing the empirical results and methodologies. Attention is paid to pros and cons of different measures (*de jure* vs. *de facto*, and quantity- vs. price-based) of financial integration. Finally, I review the conclusions of empirical attempts in addressing financial integration effects on the macroeconomy. Section 3 is divided in two parts. Firstly, I describe the data and I explain the construction of the consumption volatility as a measure for macroeconomic stability and three price-based measures of financial integrations. In the second part I present the panel data models and I run a battery of preliminary tests to check whether (*i*) variables are stationary, (*ii*) financial integration measures and consumption volatility are truly cointegrated and (*iii*) it is possible to assume poolability.

In Section 4 I run standard time-series regressions for each country in my sample and I highlight the different effect of financial integration on consumption volatility among developed and emerging countries. Subsequently, I proceed in estimating a dynamic fixed effect and a pooled mean group panel regression models. Here, apart from underlying the differences between the two country groups, I focus on the asymmetric effects of financial integration in the short- and long-run.

Section 5 is devoted to robustness checks, mostly performed on each of the regression models I used in the previous Section. In particular I (*i*) account for the Subprime Crisis, (*ii*) use different measures to proxy macroeconomic stability, (*iii*) construct both consumption volatility and financial integration measures using a shorter rolling window, (*iv*) account for asymmetries and non linearity in the relationship between financial integration and consumption volatility and (*v*) consider a different channel of risk-sharing, namely the (short-term) bond market. Section 6 concludes.

2 Related literature

In this section I review the main works on financial integration and consumption smoothing. In particular, I describe the implications of financial integration on macroeconomic stability, drawn on theoretical models. Subsequently, I briefly review the measures of financial integration, focusing on the pros and cons of the different categories of indicators. Finally, I discuss the empirical works investigating the relationship between financial integration and consumption volatility.

Theoretical results The international business cycle (IBC) literature focused on the role of financial integration in determining risk-sharing opportunities and thus consumption smoothing. A simple solution to model financial integration is to represent it as in Sutherland (1996). In the model financial integration is represented by a reduction in trade frictions, namely the adjustment costs agents face when trading foreign assets. In this framework, as financial integration rises, or in other words trade frictions reduce, capital mobility increases and agents hold more foreign assets.

Under perfect capital mobility agents hold both domestic and foreign assets which provide risk-sharing opportunities against three sources of shocks: money supply, government purchases and labour supply. These shocks create short-run disequilibria which fasten intertemporal substitution, possible through portfolio holdings.

Increasing financial integration provides macroeconomic stability in terms of reduced consumption volatility.

More recently Pommeret and Epaulard (2005) study financial integration and its role not only for risk-sharing, but giving attention to other aspects such as capital constraints and the ability to attract foreign investments, thus boosting productivity. Financial integration plays a dual role: on the one hand, increasing financial integration allows the representative agent to buy and hold foreign assets and to borrow from the rest of the world. On the other hand integrated countries receive foreign direct investments (FDI), which are used for production.

This small economy is affected by productivity and foreign assets shocks, which lead to different scenarios according to the level of financial integration. In particular, the latter provides small but significant gains only in well-integrated countries, mostly in terms of productivity and economic growth. Countries that are not fully integrated may instead experience macroeconomic volatility increases.

The hypothesis of non linearity and asymmetry is well formulated in the work of Evans and Hnatkovska (2007a). Their model allows for three equilibria and incomplete markets, namely financial autarky, partial integration and full integration. The three situations are characterized by the kind of assets agents are allowed to trade. In the case of financial autarky agents can only buy domestic assets. Partial integration equilibria allow the trade of international bonds, instead under full integration international equity is tradable. Financial integration in this framework provides greater risk-sharing and less volatile capital flows only in the last stages of the process. The effect of financial integration on macroeconomic volatility are highlighted by the authors which explicitly state the non linear dynamics of financial integration on macroeconomic volatility. In the early stages, from financial autarky to low or partial integrated, the volatility actually increases and drops only when international equity can be traded to hedge country-specific shocks.

Levchenko (2005) deepens the hypothesis of non linearity by constructing a model in which the assumption of the existence of a representative agent is relaxed. In particular it is assumed there are two groups of individuals: those who have access to the international financial markets and thus able to hedge the idiosyncratic risk, and those who do not. The latter can suffer from losses in the case in which the idiosyncratic risk prevails, as risk sharing opportunities decrease following the other's group investment decisions. In this framework, when the financial integration process is not complete, namely when the international market access is uneven, a country may experience a rise in consumption volatility.

A different strand of the IBC literature has instead focused on the counterpart of financial integration, i.e. contagion risk. Elliott et al. (2014) state that contagion risk is amplified by financial interconnectedness and there exists a trade-off between integration and diversification, as one is detrimental for the other. This two dimensions of financial integration have different effect on contagion risk; low diversification lowers the probability of network's default because contagions are more likely to start and end before affecting many agents. Integration on the other hand increases the probability of a contagion and its diffusion in the network. This drawback of financial integration has been neglected in many theoretical works.

Similarly, Cabrales et al. (2017) analyse the trade-off between risk-sharing and risk-exposure, by focusing on the network structure. Integration (or low segmentation) plays two roles: on the one hand, high segmentation reduces the propagation of a shock and, on the other hand, high integration increases the exposure (and the probability of default) if there is a large shock. The other determinant of the model is the network density, namely how well connected is a node to the others. Here direct and indirect links produce different effects. Theoretical equilibria between integration and risk-sharing are multiple according to the shock and the network structure.

Many theoretical models have instead focused on the real exchange rates implication of consumption risk-sharing, posing puzzles in matching predicted quantities with the data. Backus and Smith (1993) report the well known *Backus-Smith anomaly*, namely the low (or even negative) correlation between consumption growth differentials and the real exchange rate. The reason why this result is an anomaly is straightforward: under full risk-sharing (i.e. frictionless complete markets) consumption growth across countries should be close to one, as all idiosyncratic shocks are insured. The real exchange rate, which is determined by the ratio of domestic and foreign consumption, must be one, posing a perfect positive relationship with consumption growth differentials. Contrary to the theory, data show a low or negative Backus-Smith correlation even among the most integrated countries of the world. Along with other IBC puzzles, Colacito and Croce (2008) build a two-country open economy model to address the Backus-Smith and the real exchange rate anomaly. The latter being the fact the model implies relative low volatility of the real exchange rate compared to the data. Once again, under full risk-sharing shocks are perfectly correlated around the world and there is no opportunity of hedging, so that the real exchange rates must be constant. Intuitively, if individuals are allowed to trade assets in international financial markets, the real exchange rate becomes more volatile. Colacito and Croce (2008) by taking into account risk-sensitiveness and long-run shock persistence, show that the real exchange rate anomaly can be addressed.

These two puzzles gained much attention in the IBC literature and there have been many other attempts in addressing them in theoretical models. Among other, Bodenstein (2008) constructs a two-country model with complete markets and contracts enforcement constraints. For agents impatient enough the reported degree of risk-sharing is limited and the model produces a volatile exchange rate negatively correlated with consumption growth differentials.

Recently Donadelli and Paradiso (2014) relying on Epstein-Zin recursive preferences with intertemporal elasticity of substitution and relative risk aversion, address the Backus-Smith anomaly between US and Canada in their model. Also, consumption growth in the two countries is positive and close to the data, although not unity. As a further matter, under complete markets the model produces a relative high volatility of the real exchange rate and a relative high equity market returns correlation. This latter result is particularly important in empirical international macroeconomics as it serves as indicator of the degree of financial integration.

Measures of financial integration Standard international business cycle literature largely accepts that financial integration comes with welfare gains in terms of reduced consumption volatility, at least when the process is complete, namely when all international financial assets are tradable and agents can all access international financial markets. Several empirical works have instead provided mixed evidence on this fact. In some cases there have been highlighted negative welfare effects of financial integration on macroeconomic stability.

In this literature, financial integration has been measured in many ways which can be categorized in two main groups: *de jure* and *de facto* indicators. The former is an indicator, often modelled as dummy variable, which indicates the degree of financial openness in terms of absence of barriers to investments. This is the least effective indicator, because the fact that agents are allowed to trade assets internationally does not necessarily imply that they will exploit the risk-sharing opportunities. Actually, the (equity) home bias is one of the main puzzles in international economics (Obstfeld and Rogoff, 2000).

Financial integration is better measured by *de facto* indicators. These rely on asset pricing or portfolio flows and can be categorized in price- and quantity-based indicators respectively. Adam et al. (2002) provide a clear guidance into these two kinds of indicators, highlighting pros and cons. Quantity-based measures have been highly employed in empirical works examining the relationship between financial integration and consumption smoothing (Kose et al., 2003, 2009; Suzuki, 2004; Jappelli and Pistaferri, 2011, among others). Unfortunately the way in which they have been used does not represent a necessary nor a sufficient condition for financial integration, according to Adam et al. (2002). What determines integration is the bilateral trade, whereas common quantity-based measures only account for the total inflow or outflow. In this framework it is not possible to determine whether a country's flow is well diversified or not.

More sophisticated and accurate indicators for financial integration are the price-based ones. The most simple price-based measure is the standard correlation (ρ). Based on bilateral returns correlation is computed as the average pairwise correlation between each pair of countries' returns. The ρ has been criticized by Pukthuanthong and Roll (2009) and Volosovych (2011), because well integrated countries do not necessarily show perfect correlation in stock market returns. Moreover, the latter measure suffers from volatility bias, i.e. when markets drop, the standard correlation rises, even if countries are not more integrated. The more robust integration measure proposed by Pukthuanthong and Roll (2009) is based on the R-squared of a regression in which the explaining variables are *global risk factors*: under full integration stock markets dynamics must be completely driven by global shocks, such that all idiosyncratic risks are hedged.

A similar approach is the one of Volosovych (2011) in which financial integration is based on the bond market and computed by means of the explanatory power of the first principal component (*1st PC*) of bond prices. This measure shows an increasing degree of financial integration in the last 20 years, consistently with other works (Zaremba et al., 2019, among many others)

Empirical investigation All the previously cited works attempting to capture financial integration by means of price-based measures do not relate it to a well established fact in international business cycle: *higher financial integration improves risk sharing opportunities and consumption smoothing*. Instead, there have been many attempts to study the relationship between quantity-based financial integration and consumption volatility (or smoothing).

Nevertheless, they provide mixed evidence of improved macroeconomic stability following a rise in financial integration.

Kose et al. (2003) use a sample of emerging markets, distinguished in more or less financially integrated to study the role of integration in determining macroeconomic stability. They employ both *de jure* and *de facto* measures of integration. The former proxies restriction on current account transactions, while the latter is given by the ratio of gross capital inflow to GDP. Using a standard OLS panel regression they find financial openness to be positively correlated with output and consumption volatility, namely an increase in financial integration actually increases volatility, contrary to theoretical predictions. The relationship, although rarely significant is however non linear.

Similarly, Neaime (2005) employ a dummy variable to proxy trade restrictions and a quantity-based measure of integration built on gross capital flows to GDP. Again, their analysis on MENA countries does not provide a clear guidance into the empirical relationship between financial integration and consumption or output volatility. In fact, current account restrictions are negatively associated to both consumption and output volatility, but not financial openness.

A different approach is the one of Kose et al. (2009). Based on the Euler equation of a standard Arrow-Debreu economy, they test whether idiosyncratic shocks affect consumption growth. Results suggest that the evidence of welfare gains from financial integration is very weak in both developed and developing countries. They then construct a variety of *de jure* and *de facto* indicators of financial integration and by means of standard panel regressions they report weak evidence of improved consumption smoothing under high financial integration. Actually, industrial countries are able to attain some small benefits in terms of risk-sharing from financial integration, but overall there is no definitive evidence of the welfare gains predicted by theoretical models.

In the spirit of Kose et al. (2009), Sørensen et al. (2007) relate the equity home bias (one minus the share of foreign assets in the world portfolio) to risk-sharing. Using a panel regression model on a sample of OECD countries they find consumption volatility to decrease when foreign assets holdings increase. Moreover, FDI are positively associated with consumption smoothing as well, but not equity holdings. Still, the authors suggest that increasing international assets diversification does not necessarily lead to increased risk-sharing.

In recent times Xu and Corbett (2019) tried to study the relationship between financial integration and output volatility, from the point of view of the credit market. In this respect they apply the interconnectedness index of Diebold and Yılmaz (2014) to the share of the estimated cross-border claims of banks from 24 counties. Results of a panel regression model with time and country fixed effects suggest that financial integration has a non linear effect on output volatility when controlling for the pre- and post- global financial crisis of 2008.

The approach of Suzuki (2004) takes two steps: first he decomposes income shocks into transitory and permanent, then studies the response of consumption to income shocks. As a measure of financial integration Suzuki (2004) employs a quantity-based indicator constructed as the sum of foreign assets and liabilities over GDP. Main results suggest that more integrated countries better absorb shocks, or in other words, higher financial integration leads to more consumption smoothing, at least in EU countries. Differently, OECD countries appear to be less integrated and thus unable to completely hedge against income shocks.

In the literature focused on the relationship between consumption smoothing and financial integration there have been some attempts relying on micro data, in particular households- and firm-level data. Jappelli and Pistaferri (2011) decompose income changes into permanent and transitory components as in Suzuki (2004), then they rely on an Italian households panel dataset to study whether an increase in financial integration leads to a lower consumption sensitivity to income shocks. Under complete markets changes in consumption are independent to income changes and Jappelli and Pistaferri (2011) argue that the introduction of the euro currency can be considered a proxy of financial integration and liberalisation. Contrary to this prediction they find that this process has not lead to significant reduction in the sensitivity parameter, namely there is no evidence of improved consumption smoothing or risk-sharing after joining the European Monetary Union (EMU).

In the spirit of Sørensen et al. (2007), Kalemli-Ozcan et al. (2014) proxy financial integration by the share of foreign assets holdings in a EU firm-level panel. By means of panel regressions with time, regional and sector dummies they find financial integration to actually increase volatility, at odds with theoretical results. Nevertheless, this evidence is interpreted as a side-effect of high returns investments which boost GDP growth.

Empirical works which rely on quantity-based indicators of financial integration provide mixed evidence of improved consumption smoothing under full integration. More recently times many authors focused on price-based measures, but very few of them studied the implications for macroeconomic volatility and risk-sharing. A first attempt comes from Billio et al. (2017): they first construct a variety of price-based measures of financial integration (including the ρ, *1stPC*, R^2 and other more sophisticated indicators), then they compare their performance. It is shown that all of these measures (except for the Forber-Rigobon) predict very similar patterns of integration. Additionally, they related these measures to diversification benefit. The latter significantly decreases when integration of financial markets increases, no matter which measure is employed.

By relying on firm-level data and the R^2 index, Akbari et al. (2019) highlight the importance of disentangling economic from financial integration. While the former is concerned with a synchronization of business cycles, the latter regards risk-sharing opportunities. The authors state that to truly understand the implications and dynamics of financial integration it is necessary to first measure and control for economic integration, which is detrimental for risk-sharing opportunities. In fact, whenever business cycles are well synchronized, stock markets tend to move in the same direction, thus reducing diversification benefits (Plazzi (2009)).

3 Data and methodology

In this section I present the data used for the empirical analysis, the data source and the summary statistics of the main variables in the sample. Subsequently I present and discuss the econometric methodology.

3.1 Data

I collect data for the following countries, distinguished in Developed (DEV) and Emerging (EM)[1]:

- **Developed:** Canada, France, Germany, Italy, Japan, United Kingdom, United States
- **Emerging:** Brazil, Chile, Greece, Hungary, India, Israel, Korea (Rep), Mexico, Poland, South Africa, Turkey

Consumption volatility As stated in Prasad et al. (2003), macroeconomics stability is better proxied by the volatility of consumption. High fluctuations in consumption have a negative impact on welfare. Nevertheless, empirical work studying the welfare implications of financial integration employed other measures such as the volatility of income or the consumption-to-income volatility ratio (Kose et al., 2003, 2009; Neaime, 2005). In this work I follow Prasad et al. (2003) and use the volatility of consumption growth as dependent variable to proxy macroeconomic stability[2].

Consumption growth data are retrieved from the OECD Quarterly National Accounts. The volatility of consumption in each country is constructed using a rolling window of 40 observations (i.e. 10 years).

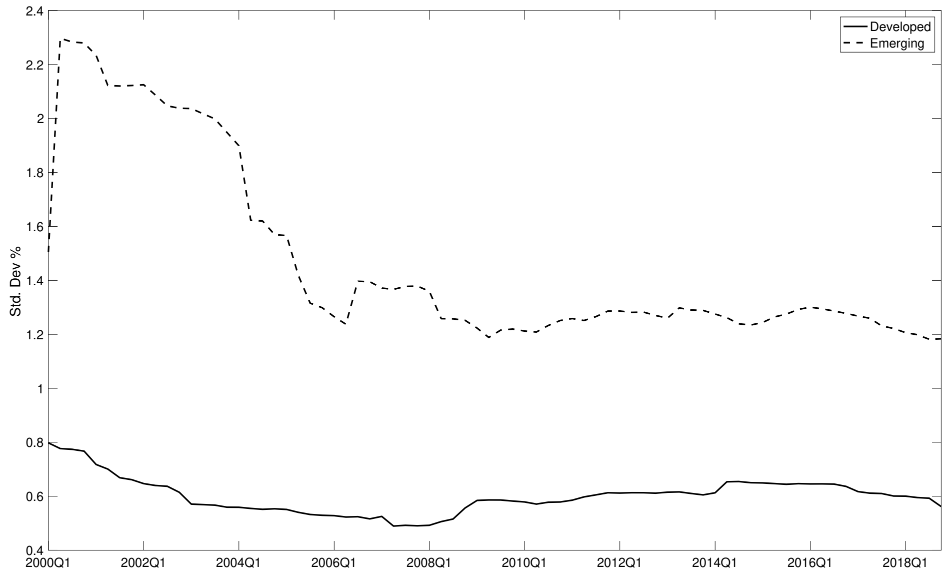
As shown in Figure 3.1 there is a significant difference in the aggregate volatility in the two country-groups: emerging countries have a much higher consumption volatility than developed ones, at least in the first sample period. Nevertheless, both show a drop during

[1] Notice that there is no unique definition of *emerging country*. Actually, international institution such as IMF, FTSE, S&P use different criteria to identify emerging countries. In this work, the choice of including a country in the EM group is weighted among data availability and being recognized as *emerging country* by at least one international institution. Nevertheless, the EM groups represents those countries whose process of integration started later compared to advanced economies.

[2] Other risk-sharing proxies will then be used as robustness checks in Section 5.

the beginning of 2000, even though the decreases is limited for developed countries. The average consumption volatility for the full sample and for three subsamples is reported in Table 3.1.

Figure 3.1: Consumption Volatility Dynamics



Notes: The figure shows the dynamics of the aggregate consumption volatility growth, computed as the average of country's volatility within each group using a rolling window of 40 periods (i.e. 10 years). Developed countries are marked by the solid line, emerging countries by the dashed line. Data from 2000:Q1 to 2018:Q4.

Table 3.1: Consumption Volatility (Average)

Panel A: 2000:Q1 - 2018:Q4		
	DEV	EM
$\sigma(\Delta c)$	0.601	1.468
Panel B: 2000:Q1 - 2004:Q4		
	DEV	EM
$\sigma(\Delta c)$	0.644	1.999
Panel C: 2005:Q1 - 2009:Q4		
	DEV	EM
$\sigma(\Delta c)$	0.533	1.318
Panel D: 2010:Q1 - 2018:Q4		
	DEV	EM
$\sigma(\Delta c)$	0.615	1.256

Notes: The table reports the average consumption volatility for the full sample (2000:Q1 - 2018:Q4) and for three subsamples in the Developed and Emerging country-groups. The aggregate consumption volatility is computed as the average volatility within the group using a rolling window of 40 periods (10 years).

Financial integration Price-based are considered the most robust indicators of financial integration (Billio et al., 2017; Volosovych, 2011; Pukthuanthong and Roll, 2009). In this work I employ two widely used measures of financial integration, namely the pairwise standard correlation (ρ) and the R-squared (R^2). Additionally, I test the robustness of the Diebold and Yılmaz (2009) forecast error variance decomposition (θ), in its generalized form as in Diebold and Yılmaz (2012). This indicator has been applied by Xu and Corbett (2019) on cross-country financial flows, but to the best of my knowledge, it has never been constructed on equity prices and related to consumption volatility dynamics.

Starting from the ρ, this indicator is based on a well known IBC fact, i.e., higher correlation of equity market returns following a rise in financial integration (Donadelli and Paradiso, 2014; Colacito and Croce, 2008, 2013, among many other). I collect the share price index data from the OECD Monthly Financial Indicators, as a proxy of the domestic and foreign equity market returns. For each country, in time-series and panel framework I construct the standard correlation as the correlation of country i's returns with average return of its group.

As second indicator for financial integration I construct the Pukthuanthong and Roll (2009), following the procedure of Billio et al. (2017). In particular, for each country-group I extract the principal components (PCs) from the share price indexes. Principal components account for the aggregate equity market variability, or global risk-factors. Under full financial integration, idiosyncratic shocks are all insured, thus only aggregate, or global shocks hit countries. The intuition behind the R^2 is related to this fact. Indeed, I extract a number of principal components, such that they explain $\sim 90\%$ of the variability. Subsequently I estimate the following regression for each country and group:

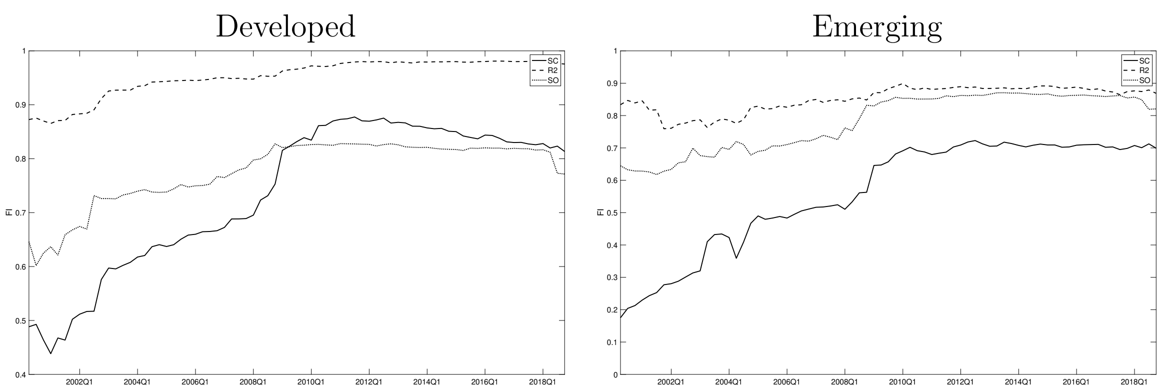
$$R_t^j = \alpha + \beta PC_t^j + \epsilon_t \tag{3.1}$$

where R_t^j is the return of country i in group j at time t. PC_t^j is the matrix of extracted principal components of group j={DEV, EM}. For each country and using a rolling window of 40 observations I extract the adjusted R^2 of each regression. For single country time-series and for panel analysis I simply employ the extracted R^2.

Finally, I employ the Diebold and Yılmaz (2009) network connectedness measure, namely the generalized forecast error variance decomposition, based on share price data. Specifically, I use a VAR(1) model and a 4 period forecast horizon. Differently from the other two price-based indicators, θ is based on forecasts and not on past values only.

The dynamics of the three indicators of financial integration are shown in Fig. 3.2. Notably, the pattern is very similar in the two country groups, although developed countries are more integrated throughout the time interval onsidered in the analysis. Subsample averages are reported in Table 3.2. In general, the $\bar{R}^2$ and $\bar{\theta}$ are very similar among developed and emerging countries, whereas the $\bar{\rho}$ is much higher for developed than for emerging countries. Moreover, all the indicators dynamics become flat after 2009:Q1. Actually only the standard correlation for DEV decreases after such date but it is still very high, determining in this ways a close to full integration framework.

Figure 3.2: Dynamics of Financial Integration indicators



Notes: The figure shows the dynamics of the (average) financial integration process in the developed (left panel) and emerging country-groups (right panel). Equity market integration is captured by the (*i*) cross-country standard correlation (ρ, solid line), (*ii*) adjusted R-squared (R^2, dashed line), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, dotted line). Sample period: 2000:Q1-2018:Q4

Additional variables As in the main empirical IBC works focusing on the relationship between consumption smoothing and financial integration, I consider some control variables in the regression. First, I include a *de facto* quantity-based indicator of financial integration, namely the net outflow of foreign direct investments (FDI) as percentage of the GDP. Data at annual frequency are retrieved from World Bank Data and linearly interpolated to match the quarterly frequency of consumption and financial integration indicators. Second, a measure

Table 3.2: Financial Integration indicators (Average)

	DEV	EM
Panel A: 2000:Q1 - 2018:Q4		
	DEV	EM
$\bar{\rho}$	0.735	0.562
$\bar{R}^2$	0.952	0.852
$\bar{\theta}$	0.777	0.781
Panel B: 2000:Q1 - 2004:Q4		
	DEV	EM
$\bar{\rho}$	0.545	0.317
$\bar{R}^2$	0.902	0.797
$\bar{\theta}$	0.691	0.662
Panel C: 2005:Q1 - 2009:Q4		
	DEV	EM
$\bar{\rho}$	0.710	0.541
$\bar{R}^2$	0.957	0.859
$\bar{\theta}$	0.779	0.755
Panel D: 2010:Q1 - 2018:Q4		
	DEV	EM
$\bar{\rho}$	0.850	0.704
$\bar{R}^2$	0.850	0.883
$\bar{\theta}$	0.819	0.859

Notes: The table reports the average of financial integration in the developed (left panel) and emerging country-groups (right panel) for the full sample, from 2000:Q1 - 2018:Q4 (Panel A) and for three subsamples: 2000:Q1 - 2004:Q4 (Panel B), 2005:Q1 - 2009:Q4 (Panel C) and 2010:Q1 - 2018:Q4 (Panel D)
Equity market integration is captured by the (*i*) cross-country standard correlation (ρ), (*ii*) adjusted R-squared (R^2), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ). Sample period: 2000:Q1-2018:Q4

of good market openness is obtained as the ratio of imports and exports over the GDP and is called Trade Openness (TO). Finally, I include a proxy for the level of prices, proxied by the Consumer Price Index (CPI). The variables span the period from 2000:Q1 to 2018:Q4 at quarterly frequency.

3.2 Methodology

In this section I describe the empirical methodology employed to estimate the short- and long-run implications of financial integration on macroeconomic stability, represented in my sample by the volatility of consumption growth. The two datasets for developed and emerging countries allow for the use of panel models able to capture both time-series and cross-sectional information.

When choosing the panel model to be applied, it is of first order importance to distinguish between micro- and macro-panels (Burdisso and Sangiácomo, 2016). Micro-panels include many cross-section units (large N) and few time-series observations (small T). Differently, macro-panels involve small N and large T, usually enough to estimate single time-series regressions. This difference raises a non negligible issue: most common panel models (such as Fixed and Random effects) rely on asymptotic properties obtained by letting $N \to \infty$. Macro-panels instead rely on asymptotic properties obtained by letting both $T, N \to \infty$. The latter is the type of panel I use, where T=76 and N=7 or N=11, respectively for DEV and EM.

Moreover, standard panel models implicitly assume that the estimated coefficients are the same among cross-section units, except for the intercept. This assumption is limiting: Evans and Hnatkovska (2007a) and Levchenko (2005) among others, show that financial integration effects on macroeconomic volatility might differ in the short-run, but in the long-run all countries converge to an equilibrium, once the process is complete and full integration is attained. Moreover, Guiso et al. (2016) show that cultural factors play a role in this framework, easing or slowing down the process of integration. Given this starting point I decided to apply the Pooled Mean Group (PMG) estimator of Pesaran et al. (1999). The underlying model allows for heterogeneity in the short-run, but constrains the long-run coefficients to be the same among cross-section units.

Before formally presenting the time-series and panel regression models, I perform some preliminary tests to deal with some common issues that might raise when using both time-series and panel models. First, I check whether the variables in my sample are stationary. Second, the intuition of Evans and Hnatkovska (2007a) and Levchenko (2005) can be formalized as the presence of cointegration between consumption volatility and financial integration measures. Finally, I employ the Hausman test to check whether, at least in the long-run, the coefficients associated to financial integration can be reasonably assumed to be the same across countries.

Unit Root As aforementioned, I formally check the presence of unit root in the variables in my dataset, for both country groups.

Specifically, I run an Augmented Dickey-Fuller test for unit root (Said and Dickey, 1984). Basically, I estimate an autoregressive model including both levels and first differences of the dependent variable and test whether the coefficient of the lagged variable is significantly different from zero, after controlling for the lagged first difference. Results are shown in Tables C.1 and C.3 for developed and emerging countries respectively. Most of the variables contain unit root, thus I express them in first difference and test again the stationarity of the series. After first differencing, the test suggests that unit root is no longer present in the data (see Tables C.2 and C.4).

Similarly, I perform the Choi (2001) test for unit root in a panel framework. Tables C.5 and C.6 report the test statistics and p-values of the test. When variables are expressed in levels, I cannot reject the hypothesis of non-stationarity. Again, expressing variables in first difference leads to a stationary panel. From now on all employed variables will be expressed and included in the models as first difference.

Cointegration Theoretical evidence on the relationship between financial integration and consumption smoothing suggests that the two might be cointegrated. Hereafter I run a formal test for cointegration on consumption volatility and on each financial integration measure, both in time-series and panel framework. For time-series I employ the Engle and Granger (1987) test for cointegration. Regardless of the indicator of financial integration and according to MacKinnon (2010) critical values, the test rejects the hypothesis of cointegration among financial integration and consumption smoothing in a time-series framework (see Tables D.1 and D.2). Tests for panel data has been performed according to Pedroni (1999). Differently from what has been found in time-series, Tables D.3 and D.4 confirm the cointegration between consumption volatility and each of the three measures of financial integration. The inconsistency between the conclusions draw on the cointegration test in the time-series and panel versions can be formally addressed. The first generation of cointegration tests, which includes both Engle and Granger (1987) and Johansen (1991), is found to have low power (i.e., the test is likely to don't reject the null when the false is actually true) (Kamps, 2004; Maddala and Kim, 1998; Di Iorio and Fachin, 2014). Moreover, the hypothesis testes in the time-series cointegration test is slightly different from what have been tested with Pedroni (1999)'s procedure and the latter test has more power, besides it is also run with more observations.[3]

Poolability In this paragraph I discuss the choice among three panel regression models which can be rewritten in error correction form, such that the cointegration between consumption volatility and financial integration indicators is accounted for. In particular I consider the following models: (*i*) mean group, (*ii*) pooled mean group and (*iii*) dynamic fixed effect. These models respectively assume full heterogeneity (i.e. estimated coefficients are different both in the short- and the long-run), partial heterogeneity (only in the short-run) and no heterogeneity (all coefficients are constrained to be the same, both in the short- and long-run).

Poolability is tested through an Hausman test: first I test full heterogeneity *vs.* partial heterogeneity, namely I compare the estimated coefficients of the mean group and dynamic fixed effect models. Subsequently, I test the mean group *vs.* pooled mean group. In other words, I test whether heterogeneity is present in the short-run only (as theoretical results suggest) or it affects the long-run estimates as well. In both cases the mean group is the always consistent model under the null and alternative hypothesis, as it allows all coefficient to differ among countries. On the other hand, the DFE and PMG models are inconsistent under the alternative and efficient under the null.[4]

Results of this preliminary test are reported in Table E.1. For all pairs of models tested, and for both developed and emerging countries, the p-value suggests that pooled mean group and dynamic fixed effect must be preferred to the mean group model.[5]

The Hausman therefore provides evidence of poolability, at least in the long-run. This evidence is thus taken into account by the estimation of a pooled mean group panel regression model, in which, once again, all independent variables (including FI measures) are allowed to vary across countries in the short-run, but financial integration indicators are constrained to be equal within the country group in the long-run.

[3] Actually, a similar situation, in which time-series and panel cointegration tests disagree has been found by Di Iorio and Fachin (2014) studying the long-run relationship between savings and investments.

[4] Under the null DFE and PMG are efficient because they estimate less coefficients with respect to the MG model. This allows to keep more degrees of freedom.

[5] In Panel C, for the developed country group, the test statistic (χ^2) is negative. Greene (2003) suggests that empirically this issue must be interpreted as a zero value test statistic, thus the p-value is equal to one.

As a benchmark model I estimate a dynamic fixed effect panel regression model (DFE). Notably, this model assumes full poolability, i.e. coefficients of all cross-section are the same.

Time-Series Following Smith and Fuertes (2010), I first estimate N time-series regressions for each unit in the two country-group to investigate intra- and inter-group differences. In particular, for each country-group I estimate the following set of equations:

$$\begin{aligned} \Delta\sigma(\Delta c)_{1,t} &= \alpha + \beta \Delta \mathbf{x}_{1,t} + \epsilon_{1,t} \\ &\vdots \\ \Delta\sigma(\Delta c)_{N,t} &= \alpha + \beta \Delta \mathbf{x}_{N,t} + \epsilon_{N,t} \end{aligned} \tag{3.2}$$

where $\Delta\sigma(\Delta c)$ is the volatility of consumption growth, $\mathbf{x}$ is the vector of explanatory variables containing FI, TO, FO, CPI.

Pooled Mean Group Finally, I describe the general mean group estimator, which is used to estimate short- and long-run coefficients, where only financial integration indicators are constrained to have homogeneous effects among countries within a group and all other coefficients are allowed to be different regardless of the time horizon.

As in Pesaran et al. (1999) and Blackburne and Frank (2007), I start from a general ARDL (p, q_1, ..., q_k) model:

$$y_{i,t} = \alpha_i + \sum_{j=1}^{p} \lambda_{i,j} y_{i,t-j} + \sum_{j=0}^{q} \beta'_{i,j} \mathbf{x}_{i,t-j} + \epsilon_{i,t}, \tag{3.3}$$

In the latter equation, $\mathbf{x}_{i,t}$ is a $k \times 1$ vector of explanatory variables, α_i is the fixed effect, the $\lambda_{i,j}$ are the scalar coefficients of the lagged dependent variable terms and $\beta_{i,j}$ are the coefficients of the variables. By assuming stationarity of the process generating α_i and following, Hassler and Wolters (2005), Eq. 3.3 can be re-written in error-correction model form:

$$\Delta y_{it} = \alpha_i + \phi_i \left(y_{i,t-1} - \theta'_i \mathbf{x}_{it} \right) + \sum_{j=1}^{p-1} \lambda^*_{i,j} \Delta y_{i,t-1} + \sum_{j=0}^{q-1} \beta'_{i,j} \Delta \mathbf{x}_{i,t-j} + \epsilon_{i,t} \tag{3.4}$$

Here, ϕ_i is the coefficient representing the speed of convergence to the long-run equilibrium. Testing $H_0 : \phi_i = 0$, $H_1 : \phi_i \neq 0$, implies testing whether a long-run equilibrium exists and is the same for all cross-sectional units.

In my particular case I estimate the following ARDL:

$$\Delta\sigma(\Delta c)_{i,t} = \alpha_i + \phi_i \left(\sigma(\Delta c)_{i,t-1} - \theta_i' \mathbf{x}^*_{i,t}\right) + \lambda^*_{i,j}\Delta\sigma(\Delta c)_{i,t-1} + \beta'_{ij}\Delta\mathbf{x}_{i,t} + \epsilon_{i,t} \tag{3.5}$$

where $\mathbf{x}$ is the vector of explanatory variables which include, FI, TO, FO, CPI, and $\beta_{i,j}$ is the vector of corresponding coefficients. As previously shown, FI is cointegrated with $\Delta\sigma(\Delta c)$ and thus there exists a long-run relationship among them. The vector of long-run constrained covariates is $\mathbf{x}^*_{i,t}$ whose relationship with the dependent variable is represented by θ_i'. The speed of adjustments is represented by ϕ_i. Notice that in the pooled mean group model, α_i, ϕ, λ^*_{ij}, β'_{ij} and $\epsilon_{i,t}$ are allowed to be different in the short-run among units or countries, whereas in the long-run the coefficient of $\mathbf{x}^*_{i,t}$, namely FI, is constrained to be the same for all countries in the long-run and is determined by the deviations from the cointegration relationship in the short-run. Differently, in the dynamic fixed effect model all coefficients ϕ, $\lambda^*_{i,j}$ and $\beta'_{i,j}$ are constrained to be the same, both in the short- and long-run. The only parameter which is allowed to differ among countries is the intercept. As suggested by the Hausman tests, I will employ the pooled mean group and the dynamic fixed effect as benchmark panel regression models.

4 Empirical analysis

In this section I present and discuss the estimates of the time-series and panel regression models. Specifically, I first estimate the time-series model as in Eq. 3.2 for each country and for each country-groups. Subsequently, I estimate a dynamic fixed effect model as a benchmark case. The equation to be estimated is Eq. 3.5. Here only the intercept can differ among countries. Finally, I estimate a pooled mean group, in which the coefficient are allowed to be different among countries in the short-run and the coefficient associated to the included financial integration measure is constrained to be the same among countries within a country-group in the long-run.

4.1 Time-Series

Hereafter I present and discuss the time-series regression results for the two country-groups according to Eq. 3.2. Table 4.1 reports the regressions results for DEV. Even though this is the most homogeneous group the coefficient associated with FI differs notably across countries, regardless of which indicator of financial integration is employed. Actually, only Germany shows an always negative effect of FI on the volatility of consumptions, although it is never significant. FO coefficients provide mixed evidence of improved consumption smoothing following a rise in the FDI-to-GDP ratio, at odds with theoretical results. Some countries such as Germany, Japan and United States attain, on average, welfare gains in terms of reduced consumption volatility. For all other developed countries the coefficient differs in sign across panels. Broadly speaking there is no strong evidence of improved consumption smoothing following a rise in financial integration, regardless of which measure is employed.

Regression results for emerging countries are reported in Table 4.2. Heterogeneity in the relationship between financial integration and consumption volatility can be depicted by looking at the coefficient of FI. Moreover, the sign of the coefficient is the same across the three financial integration measures for Chile, Hungary, India and South Africa. With regard to the other countries in the group, the effect of FI varies among the three measures of integration.

Moreover, there is little evidence of reduced consumption volatility after an increase in FO for Israel and South Africa. In general, and contrary to the theory, financial openness, proxied by FDI-to-GDP ratio comes with no benefits in terms of macroeconomic stability. Actually, EM estimates of FI are more consistent with the theory, compared to DEV. Most of the countries are attaining benefits from financial integration, despite the lack of significance. The high degree of heterogeneity within country-group questions the hypothesis of poolability, i.e. assuming same coefficients in a panel framework.

Table 4.1: Time-Series Regressions: Developed Countries (DEV)

Panel A: ρ	Canada	France	Germany	Italy	Japan	United Kingdom	United States
FI	0.212	0.124	-0.571	0.021	-0.391	0.040	0.095
	(0.411)	(0.426)	(1.160)	(0.361)	(0.327)	(0.248)	(0.223)
FO	-0.077	-0.172	0.128	-0.112	5.651	-1.435	0.290
	(0.580)	(0.222)	(1.051)	(0.143)	(4.471)	(1.963)	(0.881)
TO	-0.103	-0.314	0.337	-0.303	-0.599	0.003	-0.882
	(0.515)	(0.344)	(0.338)	(0.326)	(0.457)	(0.253)	(0.825)
CPI	0.003	0.004	0.005	-0.000	0.014	0.006	0.000
	(0.005)	(0.005)	(0.011)	(0.006)	(0.009)	(0.008)	(0.004)
Constant	-0.008**	-0.005*	-0.011*	-0.001	0.005	-0.005	-0.001
	(0.003)	(0.003)	(0.006)	(0.004)	(0.005)	(0.004)	(0.003)
Adj. R^2	-0.040	-0.038	-0.026	-0.039	0.022	-0.030	0.016
Obs.	75	75	75	75	75	75	75

Panel B: R^2	Canada	France	Germany	Italy	Japan	United Kingdom	United States
FI	-1.545	-0.058	-1.176	-1.323	-4.471	0.482	0.111
	(1.881)	(0.418)	(1.099)	(1.582)	(31.385)	(0.583)	(0.195)
FO	0.028	-0.171	0.052	-0.125	5.891	-1.259	0.312
	(0.592)	(0.230)	(1.030)	(0.144)	(4.846)	(1.872)	(0.947)
TO	-0.342	-0.314	0.314	-0.426	-0.410	0.024	-0.919
	(0.503)	(0.342)	(0.380)	(0.299)	(0.473)	(0.273)	(0.823)
CPI	0.003	0.004	0.003	-0.002	0.015	0.008	0.000
	(0.006)	(0.005)	(0.011)	(0.007)	(0.010)	(0.008)	(0.004)
Constant	-0.006*	-0.005*	-0.010	0.001	0.003	-0.006	-0.001
	(0.003)	(0.003)	(0.007)	(0.004)	(0.005)	(0.004)	(0.003)
Adj. R^2	0.002	-0.039	-0.003	0.037	0.003	-0.002	0.014
Obs.	75	75	75	75	75	75	75

Panel C: θ	Canada	France	Germany	Italy	Japan	United Kingdom	United States
FI	0.163	-0.246	-0.459	-0.041	0.034	-0.346	0.017
	(0.346)	(0.301)	(0.738)	(0.149)	(0.100)	(0.481)	(0.213)
FO	-0.083	-0.159	0.037	-0.110	5.913	-1.376	0.361
	(0.561)	(0.229)	(1.107)	(0.137)	(4.529)	(1.816)	(1.092)
TO	-0.204	-0.340	0.269	-0.318	-0.400	-0.012	-0.941
	(0.553)	(0.348)	(0.304)	(0.338)	(0.407)	(0.258)	(0.835)
CPI	0.002	0.004	0.006	-0.000	0.015	0.007	-0.000
	(0.005)	(0.005)	(0.011)	(0.006)	(0.010)	(0.008)	(0.005)
Constant	-0.007**	-0.005*	-0.012*	-0.001	0.003	-0.005	-0.000
	(0.003)	(0.003)	(0.006)	(0.004)	(0.005)	(0.005)	(0.003)
Adj. R^2	-0.041	-0.033	-0.031	-0.038	0.003	-0.011	0.007
Obs.	75	75	75	75	75	75	75

Notes: This table reports results for time series regressions of consumption growth volatility on financial integration indexes for the developed coutries group. Consumption growth volatility is computed using a rolling window of 40 quarters. Equity market integration is captured by the (*i*) cross-country standard correlation (ρ, Panel A), (*ii*) adjusted R-squared (R^2, Panel B), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, Panel C).

Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Sample period: 2000:Q1 - 2018:Q4. Bootstrap standard errors (1000 repetitions) are reported in parenthesis. Sample: 2000:Q1-2018:Q4. Significance at 1%, 5%, 10% are denoted respectively by ***, **, *.

Table 4.2: Time-Series Regressions: Emerging Countries (EM)

Panel A: ρ	Brazil	Chile	Greece	Hungary	India	Israel	Korea	Mexico	Poland	South Africa	Turkey
FI	1.084	-0.205	0.030	0.090	-3.342	-0.595	-0.144	0.067	-0.039	-0.098	-0.489
	(0.945)	(0.310)	(0.206)	(0.398)	(3.093)	(0.650)	(0.887)	(0.515)	(0.692)	(0.322)	(0.539)
FO	0.061	0.009	-0.007	-0.001	0.062	-0.017**	0.006	0.015	-0.039	-0.032**	-0.084
	(0.038)	(0.008)	(0.023)	(0.001)	(0.210)	(0.008)	(0.069)	(0.032)	(0.050)	(0.015)	(0.117)
TO	-1.172	-0.070	-0.053	-0.262	0.253	-0.312	0.251	-1.365	-0.161	-0.157	-0.085
	(0.919)	(0.127)	(0.206)	(0.394)	(0.794)	(0.296)	(0.441)	(0.929)	(0.284)	(0.292)	(0.348)
CPI	0.018**	0.007	0.006	0.010	0.022	0.016	-0.047	0.016*	0.005	0.003	-0.000
	(0.009)	(0.009)	(0.005)	(0.007)	(0.016)	(0.011)	(0.042)	(0.009)	(0.010)	(0.011)	(0.004)
Constant	-0.022	-0.005	0.018**	-0.012	-0.020	-0.011	0.014	-0.013	-0.019	-0.001	-0.003
	(0.013)	(0.009)	(0.007)	(0.010)	(0.022)	(0.007)	(0.016)	(0.014)	(0.016)	(0.013)	(0.009)
Adj. R^2	0.089	0.009	-0.046	-0.013	0.021	0.030	0.054	0.048	-0.051	0.024	-0.052
Obs.	47	51	72	51	46	51	72	72	51	72	39

Panel B: R^2	Brazil	Chile	Greece	Hungary	India	Israel	Korea	Mexico	Poland	South Africa	Turkey
FI	-0.093	-0.705	-0.036	0.017	-10.847	0.730	-0.022	0.037	0.015	-0.040	0.458
	(0.276)	(0.963)	(0.810)	(0.203)	(8.033)	(1.887)	(1.482)	(0.498)	(0.288)	(0.402)	(0.782)
FO	0.056	0.010	-0.011	-0.001*	0.031	-0.015*	-0.011	0.024	-0.040	-0.036**	-0.093
	(0.035)	(0.009)	(0.025)	(0.000)	(0.253)	(0.008)	(0.061)	(0.041)	(0.049)	(0.016)	(0.108)
TO	-1.142	-0.021	-0.064	-0.258	0.692	-0.198	0.307	-1.276	-0.156	-0.153	-0.096
	(0.883)	(0.147)	(0.207)	(0.355)	(0.689)	(0.308)	(0.485)	(0.860)	(0.276)	(0.299)	(0.375)
CPI	0.016*	0.006	0.006	0.010	0.020	0.014	-0.051	0.016*	0.005	0.004	-0.002
	(0.009)	(0.008)	(0.006)	(0.007)	(0.014)	(0.011)	(0.046)	(0.009)	(0.009)	(0.011)	(0.005)
Constant	-0.020	-0.004	0.019**	-0.012	-0.015	-0.011	0.015	-0.013	-0.020	-0.002	-0.001
	(0.013)	(0.008)	(0.008)	(0.009)	(0.023)	(0.007)	(0.016)	(0.015)	(0.015)	(0.014)	(0.011)
Adj. R^2	0.064	0.021	-0.043	-0.014	0.017	0.022	0.049	0.044	-0.051	0.017	-0.067
Obs.	47	51	72	51	46	51	72	72	51	72	39

Panel C: θ	Brazil	Chile	Greece	Hungary	India	Israel	Korea	Mexico	Poland	South Africa	Turkey
FI	-0.934	-0.442	0.144	0.387	-0.405	-0.259	0.508	-2.078	-3.442	-0.502	-0.143
	(1.654)	(0.432)	(0.371)	(0.391)	(1.390)	(0.794)	(0.509)	(1.501)	(4.089)	(0.340)	(0.399)
FO	0.054	0.011	-0.007	-0.001	0.112	-0.016*	-0.016	0.012	-0.045	-0.031**	-0.100
	(0.036)	(0.008)	(0.024)	(0.001)	(0.201)	(0.008)	(0.062)	(0.037)	(0.051)	(0.014)	(0.111)
TO	-1.306	-0.160	-0.072	-0.275	0.523	-0.251	0.264	-1.513	-0.478	-0.102	-0.106
	(0.927)	(0.190)	(0.221)	(0.398)	(0.769)	(0.325)	(0.409)	(0.923)	(0.610)	(0.289)	(0.419)
CPI	0.015*	0.008	0.006	0.010	0.021	0.014	-0.048	0.014*	0.003	0.003	-0.001
	(0.009)	(0.010)	(0.005)	(0.007)	(0.016)	(0.012)	(0.040)	(0.008)	(0.010)	(0.010)	(0.004)
Constant	-0.017	-0.004	0.018***	-0.013	-0.020	-0.011	0.011	-0.005	-0.011	-0.001	-0.003
	(0.012)	(0.010)	(0.007)	(0.010)	(0.022)	(0.008)	(0.013)	(0.011)	(0.009)	(0.012)	(0.009)
Adj. R^2	0.075	0.058	-0.043	-0.002	-0.054	0.018	0.103	0.119	0.013	0.050	-0.077
Obs.	47	51	72	51	46	51	72	72	51	72	39

Notes: This table reports results for time series regressions of consumption growth volatility on financial integration indexes for the emerging coutries group. Consumption growth volatility is computed using a rolling window of 40 quarters. Equity market integration is captured by the (*i*) cross-country standard correlation (ρ, Panel A), (*ii*) adjusted R-squared (R^2, Panel B), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, Panel C).

Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Sample period: 2000:Q1 - 2018:Q4. Bootstrap standard errors (1000 repetitions) are reported in parenthesis. Sample: 2000:Q1-2018:Q4. Significance at 1%, 5%, 10% are denoted respectively by ***, **, *.

4.2 Dynamic Fixed Effect

Despite the hypothesis of poolability is questionable, at least for the developed countries group and according to the results in the previous section, hereafter I estimate a panel regression model with country fixed effect for DEV and EM countries. Estimated coefficients are reported in Table 4.3 for both country-groups and for each financial integration indicator. The estimated coefficients for ρ, R^2 and θ are very similar among the two groups, with ρ and R^2 suggesting welfare gains in terms of reduced consumption volatility following an increase in financial integration, proxied by the two indicators. Differently, the θ coefficient is positive for both DEV and EM. This different effect might rely on the fact that θ is based on forecasted data, while ρ and R^2 rely on past returns only. Despite the dissimilarities in the time-series regressions, also FO and TO coefficients, as well as CPI estimated coefficients are equal across groups. Financial and trade openness enter with a negative coefficient, although not significant. Actually, inflation is significant in emerging countries.

The prevalent lack of significance suggests that the hypothesis of poolability is unrealistic given the current sample. In the next section I relax this hypothesis for the short-run by relying on a pooled mean group regression model.

Table 4.3: Dynamic Fixed Effect Regressions

	DEV			EM		
Long-run	(1)	(2)	(3)	(1)	(2)	(3)
ρ	1.833***			-0.030		
	(0.427)			(1.069)		
R^2		2.799**			6.248*	
		(1.418)			(3.509)	
θ			2.174***			1.688
			(0.330)			(2.226)
Short-run						
ECM	-0.045***	-0.033***	-0.038***	-0.025**	-0.025**	-0.024**
	(0.004)	(0.009)	(0.007)	(0.010)	(0.010)	(0.012)
ρ	-0.069			-0.071		
	(0.147)			(0.066)		
R^2		-0.066			0.017	
		(0.201)			(0.024)	
θ			-0.021			0.000
			(0.030)			(0.228)
FO	-0.177*	-0.180*	-0.161*	-0.001***	-0.001***	-0.001***
	(0.093)	(0.092)	(0.095)	(0.000)	(0.000)	(0.000)
TO	-0.130	-0.120	-0.097	-0.105	-0.100	-0.086
	(0.133)	(0.121)	(0.116)	(0.089)	(0.094)	(0.095)
CPI	0.004*	0.004	0.003	0.006**	0.007***	0.006***
	(0.002)	(0.003)	(0.002)	(0.002)	(0.002)	(0.002)
Constant	-0.049***	-0.072**	-0.045***	0.028	-0.110	-0.007
	(0.016)	(0.034)	(0.006)	(0.023)	(0.068)	(0.042)

Notes: This table reports results for dynamic fixed effect regressions of consumption growth volatility on financial integration indexes for the developed and emerging coutries groups. Consumption growth volatility is computed using a rolling window of 40 quarters. Equity market integration is captured by the (*i*) cross-country standard correlation (ρ, spec. (1)), (*ii*) adjusted R-squared (R^2, spec. (2)), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, spec. (3)). Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Sample period: 2000:Q1 - 2018:Q4. Clustered standard errors are reported in parenthesis. Sample: 2000:Q1-2018:Q4. Significance at 1%, 5%, 10% are denoted respectively by ***, **, *.

4.3 Pooled Mean Group

Theoretical results of Evans and Hnatkovska (2007b) state that welfare gains and macroeconomic stability are attained only once the process of financial integration is complete, i.e., when all kinds of financial assets are tradable without restrictions. Given this evidence, I decided to rely on a pooled mean group regression model which allows for heterogeneity in the estimated coefficients in the short-run and constrains financial integration coefficient to be the same across countries within a group in the long-run, namely when the process is expected to be complete.

In particular, Tables 4.4 and 4.5 report the estimates of Equation 3.5 for developed and emerging markets respectively. The long-run FI coefficient in DEV countries is highly significant and positive, at odds with the theory. In the short run, the ECM, which indicates the speed of convergence of a country to the long-run equilibrium, is almost everywhere significant and negative, indicating that most of the countries are converging to the estimated long-run equilibrium. Actually, FI in the short run is rarely significant. Only in some cases, and never for all measures of FI, the estimated coefficient is significant. Financial and trade openness estimates provide mixed evidence of improved macroeconomic stability. Actually only the United States benefits from an increase in TO, no matter which FI indicator is included.

Table 4.5 reports the estimates for emerging countries. Differently from what has been observed in the developed countries group, the long-run coefficient of FI is negative for all measures of financial integration. This result is consistent with the theory, namely as financial integration increases (and according to Evans and Hnatkovska (2007a), when this process is complete), consumption volatility drops. However, only a few countries are converging to the long run equilibrium and this result is not robust among Panel A, B and C. Negative and non significant ECM indicates that a long-run relationship between consumption volatility and the three measures of financial integration exists, but the country is not converging to the long-run equilibrium. In the short-run effects of FI are highly heterogeneous among both countries and indicators and rarely significant. Not surprisingly, also FO estimates differ among countries. The sign shows differences accordingly to which measure of FI is included as well. Trade openness instead always enters with a negative coefficient. This implies that on average all countries are attaining welfare gains as TO increases. Still, this result is never significant. Finally, CPI estimates do not clearly indicate its relationship with consumption volatility.

5 Robustness Checks

In this section I run a battery of robustness checks in both time-series and panel frameworks. In particular, I (i) control for the Subprime Crisis (2007:Q3 - 2009:Q2), (ii) use income growth volatility as an alternative measure for the risk-sharing degree, (iii) compute consumption growth volatility as a GARCH(4,4) model, (iv) compute consumption growth volatility and the financial integration measures using a rolling window of 32 quarters, (v) account for asymmetries and non linearity by estimating a quantile regression model and (vi) constructing the three financial integration measures on bond market data. The majority of the tests has been conducted in time-series and panel framework, estimating both dynamic fixed effect and pooled mean group regression models.

5.1 Time-Series

Subprime Crisis In this exercise I take into account the Subprime Crisis by including in the model a dummy variable which takes value one during the period from 2007:Q3 to 2009:Q2, zero otherwise. Time-series regression results for DEV and EM are reported in Tables F.1 and F.2 respectively. The included dummy is not surprisingly positive and significant in most of the cases. This implies that the financial crisis came with more consumption volatility. However, controlling for the crisis period does not substantially alter the previous results for DEV. Actually, the effect of FI is negative and significant for Japan, when the indicator employed is the ρ. Also FO is significant, but enters as positive value, at odds with the theory. EM estimates are overall unchanged with respect to the baseline case reported in Table 4.2. Notably, the period of crisis had, on average, a positive effect on consumption smoothing in India, regardless of the financial integration indicator employed. Moreover, an increase in financial integration in Mexico, when this is proxied by θ has a negative and

Table 4.4: Pooled Mean Group Regression - DEV

Panel A: ρ	ECM	α	β_{FI}	β_{FO}	β_{TO}	β_{CPI}
Long Run			1.666***			
			(0.424)			
Canada	-0.050**	-0.055**	0.252	-0.268	-0.163	0.004
	(0.022)	(0.021)	(0.261)	(0.577)	(0.352)	(0.006)
France	-0.035**	-0.045**	0.699	-0.407	-0.362	0.004
	(0.017)	(0.022)	(0.662)	(0.324)	(0.336)	(0.006)
Germany	-0.050**	-0.058**	-0.055	0.600	0.249	0.006
	(0.020)	(0.026)	(0.567)	(1.693)	(0.338)	(0.010)
Italy	-0.051***	-0.049**	-0.086	-0.108	-0.286	0.001
	(0.019)	(0.022)	(0.346)	(0.205)	(0.309)	(0.008)
Japan	-0.068***	-0.019	-0.604**	6.258	-0.586	0.013
	(0.023)	(0.019)	(0.306)	(3.894)	(0.647)	(0.010)
United Kingdom	-0.066***	-0.055***	-0.117	-2.087	-0.037	0.002
	(0.019)	(0.019)	(0.165)	(1.470)	(0.164)	(0.006)
United States	-0.026*	-0.026**	0.069	0.126	-1.009**	0.001
	(0.013)	(0.012)	(0.108)	(0.644)	(0.463)	(0.003)

Panel B: R^2	ECM	α	β_{FI}	β_{FO}	β_{TO}	β_{CPI}
Long Run			3.602***			
			(1.338)			
Canada	-0.060**	-0.185**	-1.354*	-0.280	-0.344	0.003
	(0.027)	(0.085)	(0.772)	(0.578)	(0.322)	(0.006)
France	-0.018*	-0.058*	0.268	-0.395	-0.381	0.005
	(0.011)	(0.033)	(0.475)	(0.332)	(0.341)	(0.006)
Germany	-0.035**	-0.104**	-0.793	0.480	0.271	0.004
	(0.015)	(0.049)	(0.691)	(1.677)	(0.333)	(0.010)
Italy	-0.039**	-0.110**	-1.327**	-0.143	-0.443	0.000
	(0.017)	(0.052)	(0.524)	(0.199)	(0.305)	(0.008)
Japan	-0.024	-0.063	-7.916	5.882	-0.443	0.017
	(0.026)	(0.079)	(41.507)	(4.229)	(0.677)	(0.011)
United Kingdom	-0.056***	-0.156***	0.363	-1.514	0.005	0.004
	(0.020)	(0.044)	(0.308)	(1.459)	(0.162)	(0.006)
United States	-0.017*	-0.049**	0.088	0.140	-1.034**	0.000
	(0.010)	(0.020)	(0.145)	(0.641)	(0.457)	(0.003)

Panel C: θ	ECM	α	β_{FI}	β_{FO}	β_{TO}	β_{CPI}
Long Run			3.008***			
			(0.710)			
Canada	-0.040**	-0.080***	0.092	-0.171	-0.282	0.003
	(0.017)	(0.029)	(0.215)	(0.571)	(0.322)	(0.006)
France	-0.020	-0.045*	-0.166	-0.361	-0.370	0.005
	(0.013)	(0.026)	(0.371)	(0.331)	(0.341)	(0.006)
Germany	-0.043***	-0.089**	-0.520	0.584	0.253	0.006
	(0.017)	(0.035)	(0.523)	(1.696)	(0.336)	(0.010)
Italy	-0.026**	-0.049**	-0.025	-0.121	-0.280	0.001
	(0.013)	(0.025)	(0.279)	(0.210)	(0.331)	(0.008)
Japan	-0.026**	-0.028**	0.011	7.286*	-0.260	0.011
	(0.011)	(0.014)	(0.123)	(4.057)	(0.651)	(0.011)
United Kingdom	-0.092***	-0.159***	-0.692***	-1.664	-0.004	0.004
	(0.020)	(0.041)	(0.254)	(1.368)	(0.152)	(0.005)
United States	-0.035**	-0.068***	-0.054	0.125	-1.028**	0.000
	(0.015)	(0.022)	(0.162)	(0.631)	(0.449)	(0.003)

Notes: This table reports results for pooled mean group regressions of consumption growth volatility on financial integration indexes for the developed coutries group. Consumption growth volatility is computed using a rolling window of 40 quarters. Equity market integration is captured by the (*i*) cross-country standard correlation (ρ, Panel A), (*ii*) adjusted R-squared (R^2, Panel B), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, Panel C).
Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Sample period: 2000:Q1 - 2018:Q4. Standard errors are reported in parenthesis. Sample: 2000:Q1-2018:Q4. Significance at 1%, 5%, 10% are denoted respectively by ***, **, *.

Table 4.5: Pooled Mean Group Regression - EM

Panel A: ρ	ECM	α	β_{FI}	β_{FO}	β_{TO}	β_{CPI}
Long Run			-0.714***			
			(0.140)			
Brazil	-0.049	0.069	0.986	0.054	-0.930	0.015
	(0.060)	(0.111)	(0.939)	(0.033)	(0.987)	(0.012)
Chile	-0.129*	0.216*	-0.122	0.002	-0.015	0.008
	(0.069)	(0.118)	(0.225)	(0.008)	(0.144)	(0.005)
Greece	-0.009	0.035	-0.024	-0.007	-0.086	0.005
	(0.012)	(0.024)	(0.257)	(0.040)	(0.338)	(0.006)
Hungary	-0.026	0.036	0.141	-0.001	-0.193	0.011
	(0.026)	(0.048)	(0.406)	(0.001)	(0.444)	(0.007)
India	-0.054**	0.142	-3.442**	0.184	-0.119	0.015
	(0.028)	(0.088)	(1.693)	(0.293)	(0.971)	(0.017)
Israel	-0.004	-0.004	-0.588	-0.017*	-0.313	0.016*
	(0.049)	(0.094)	(0.657)	(0.009)	(0.340)	(0.009)
Korea	-0.006	0.027	-0.133	0.018	0.268	-0.046**
	(0.013)	(0.029)	(0.200)	(0.110)	(0.369)	(0.018)
Mexico	-0.043	0.068	0.083	0.007	0.007	0.015
	(0.032)	(0.062)	(0.101)	(0.046)	(0.046)	(0.012)
Poland	-0.587***	0.713***	0.373	0.018*	-0.030	-0.004
	(0.027)	(0.092)	(0.411)	(0.010)	(0.170)	(0.005)
South Africa	0.006	-0.008	-0.097	-0.032**	-0.159	0.002
	(0.019)	(0.023)	(0.098)	(0.015)	(0.280)	(0.008)
Turkey	0.000	-0.004	-0.491	-0.084	-0.086	-0.000
	(0.023)	(0.073)	(0.484)	(0.097)	(0.298)	(0.004)

Panel B: R^2	ECM	α	β_{FI}	β_{FO}	β_{TO}	β_{CPI}
Long Run			-0.327***			
			(0.056)			
Brazil	-0.052	0.057	-0.100	0.049	-0.897	0.013
	(0.060)	(0.089)	(0.379)	(0.033)	(0.996)	(0.012)
Chile	-0.184***	0.274**	-0.529	0.005	0.041	0.009*
	(0.070)	(0.107)	(0.555)	(0.007)	(0.141)	(0.005)
Greece	-0.016	0.045*	-0.050	-0.011	-0.130	0.005
	(0.013)	(0.025)	(0.081)	(0.040)	(0.338)	(0.006)
Hungary	-0.027	0.026	0.048	-0.001	-0.178	0.011
	(0.026)	(0.038)	(0.193)	(0.001)	(0.448)	(0.007)
India	-0.045	0.105	-9.470	0.144	0.380	0.013
	(0.028)	(0.080)	(5.764)	(0.302)	(0.973)	(0.017)
Israel	-0.004	-0.006	0.738	-0.015	-0.200	0.014
	(0.052)	(0.083)	(1.138)	(0.009)	(0.330)	(0.009)
Korea	-0.002	0.018	-0.019	-0.006	0.310	-0.050***
	(0.010)	(0.022)	(0.071)	(0.112)	(0.364)	(0.018)
Mexico	-0.038	0.049	0.054	-0.004	-0.004	0.015
	(0.024)	(0.041)	(0.097)	(0.051)	(0.051)	(0.012)
Poland	-0.594***	0.483***	0.339**	0.015	0.050	-0.005
	(0.025)	(0.038)	(0.153)	(0.010)	(0.163)	(0.005)
South Africa	-0.030	0.025	-0.042	-0.037**	-0.149	0.007
	(0.031)	(0.030)	(0.055)	(0.016)	(0.282)	(0.008)
Turkey	-0.004	0.010	0.463	-0.089	-0.097	-0.002
	(0.019)	(0.056)	(0.563)	(0.097)	(0.301)	(0.004)

Panel C: θ	ECM	α	β_{FI}	β_{FO}	β_{TO}	β_{CPI}
Long Run			-0.886***			
			(0.214)			
Brazil	-0.051	0.083	-0.919	0.048	-1.066	0.012
	(0.060)	(0.118)	(1.223)	(0.033)	(1.016)	(0.012)
Chile	-0.033	0.060	-0.465*	0.009	-0.157	0.008
	(0.051)	(0.097)	(0.239)	(0.007)	(0.151)	(0.005)
Greece	-0.007	0.031	0.128	-0.007	-0.102	0.005
	(0.011)	(0.024)	(0.305)	(0.040)	(0.341)	(0.006)
Hungary	-0.025	0.037	0.424	-0.001	-0.212	0.012
	(0.026)	(0.051)	(0.497)	(0.001)	(0.442)	(0.007)
India	-0.054*	0.147	-0.253	0.242	0.175	0.013
	(0.029)	(0.097)	(1.394)	(0.312)	(1.020)	(0.017)
Israel	-0.015	0.019	-0.240	-0.015*	-0.258	0.015
	(0.044)	(0.089)	(0.625)	(0.009)	(0.334)	(0.009)
Korea	-0.002	0.015	0.505**	-0.013	0.268	-0.048***
	(0.011)	(0.028)	(0.241)	(0.106)	(0.354)	(0.017)
Mexico	-0.033	0.064	-2.045**	-0.012	-0.012	0.013
	(0.024)	(0.052)	(0.823)	(0.047)	(0.047)	(0.011)
Poland	-0.586***	0.782***	0.525	0.021*	-0.074	-0.001
	(0.029)	(0.127)	(0.623)	(0.011)	(0.190)	(0.005)
South Africa	-0.015	0.018	-0.511*	-0.031**	-0.100	0.005
	(0.024)	(0.032)	(0.289)	(0.015)	(0.273)	(0.008)
Turkey	-0.009	0.025	-0.103	-0.090	-0.096	-0.001
	(0.023)	(0.074)	(0.287)	(0.099)	(0.311)	(0.004)

Notes: This table reports results for pooled mean group regressions of consumption growth volatility on financial integration indexes for the emerging coutries group. Consumption growth volatility is computed using a rolling window of 40 quarters. Equity market integration is captured by the (*i*) cross-country standard correlation (ρ, Panel A), (*ii*) adjusted R-squared (R^2, Panel B), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, Panel C).
Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Sample period: 2000:Q1 - 2018:Q4. Standard errors are reported in parenthesis. Sample: 2000:Q1-2018:Q4. Significance at 1%, 5%, 10% are denoted respectively by ***, **, *.

significant effect on consumption volatility, i.e., more consumption smoothing. Overall, the main time-series results are robust to the Subprime Crisis.

Income Volatility Hereafter I evaluate the performance of the three financial integration measures when risk-sharing is proxied by the volatility of income. As for consumption smoothing, income volatility is constructed using a rolling window of 40 observations, namely 10 years. Panel A of Table F.3 shows the estimates of Eq. 3.2 including ρ as the financial integration indicator. For most of the developed countries the coefficient enters with a counterfactual positive sign, indicating that as financial integration rises, income becomes on average more volatile. Actually, only France, on average, attained some small welfare benefits from financial integration. However, the estimates are never significant. Financial openness estimates provide mixed evidence of improved risk-sharing following an increase in financial outflows: for Italy, Japan and United Kingdom FO is negative and consistent with theoretical results, whereas for the rest of the countries it is at odds with the theory. Differently, trade openness is always negative. The latter result indicates that good market integration comes, on average, with welfare gains in terms of more income smoothing. The estimates are significant for France, Italy, Japan and USA. Panel B reports the regression results when employing the R^2 as a measure for financial integration. The coefficient enters with a positive sign for Japan, United Kingdom and United States and it is negative for the rest of the countries. Importantly, FI coefficient is significant at 10% for France only. No other notable differences with respect to Panel A are reported. Finally, the estimated θ still provides mixed evidence of more risk-sharing opportunities after a rise in financial integration. None of the estimates is significant and for three out of seven countries the coefficient enters with a counterfactual positive sign.

Time-series estimates for emerging countries are reported in Table F.4. When using ρ to represent financial integration in the sample, most of the countries seem not to have benefited from equity market integration and the estimated coefficient is significant for India. Financial openness has little or no effect on income volatility. Differently, trade openness is for many countries welfare improving, although never significant. Panel B shows the regression results when R^2 is included in the model. Estimated coefficients are very similar with respect to the previous panel. Actually, *FI* is now positive and significant for Mexico, Poland and Turkey, at odds with theoretical models predictions. Last, Panel C reports the regression results when using the Diebold and Yılmaz (2012) interconnectedness indicator. Coefficients are in line with the previous estimates, but no longer significant. Overall, the effect of financial integration on this alternative risk-sharing proxy is not clear, also due to the high degree of heterogeneity among countries.

Real Exchange Rate Volatility Financial integration is not only associated to lower consumption volatility (Suzuki, 2004). International business cycle works studying the implications of financial integration provide evidence of increased volatility of the real exchange rate (Bodenstein, 2008; Colacito and Croce, 2013; Donadelli and Paradiso, 2014; Tretvoll, 2018, see among others). Intuitively, once agents are allowed to trade asset internationally, pressure is put on exchange rates, making them more volatile. It is straightforward that is countries are truly integrated and risk-sharing opportunities in the equity market are exploited, the effect of any indicator of financial integration should be positively associated to the volatility of the real exchange rate.

This robustness check touches upon the following empirical research question: is higher financial integration associated with higher real exchange rate volatility? To address this question I retries real effective exchange rate (REER) data for each country from the International Monetary Fund. The REER are constructed as a weighted average of several foreign currencies Zanello and Desruelle (1997). As for consumption growth, the volatility of REER is constructed using a rolling window of 40 quarters. Time-series estimates are shown in Table F.5 for developed countries. Results in Panel A depicts the regression results when FI is proxied by the standard correlation. The coefficient associated to financial integration is positive for all countries, except for Canada, but never significant. This results is however not robust to the employed indicator of financial integration. In fact, in Panel B when including the R^2, the coefficient is no longer positive for Germany and Italy. France is positive and significant, though. Finally, in Panel C where the Diebold and Yılmaz (2012) spill over index is included in the model, four out of seven countries show a counterfactual negative coefficient of FI. Broadly speaking, the theoretical results indicating that the volatility of

REER should rise following more financial integration is not empirically confirmed for developed countries. Regression results for emerging countries are shown in Table F.6.[6] Once again, the ρ better captures REER volatility dynamics compared to the other two indicators. The coefficient of FI in Panel A is positive for all countries, but for Brazil and South Africa. The estimate is moreover significant at 10% in Greece. When instead the R-squared is included as a measure for financial integration, most of the results are at odd to the theory. The effect of financial integration on REER volatility is positive only for Greece, Israel and South Africa. Also, Poland shows a negative and significant estimate of FI. Lastly, Panel C still provide mixed empirical evidence of increased REER volatility following a rise in financial integration. Despite for most of the countries FI coefficient enter with the correct sign, no significance is observed. Bodenstein (2008) indicates that if agents are enough impatient risk-sharing might be limited. In other words, if the risk-sharing opportunities provided by more financial integration are not exploited there is no reason why an increase in REER volatility should be observed.

Different Rolling Window As an additional test I check whether the time-series results are robust to the choice of the rolling window. Therefore, I construct my measure of risk-sharing, namely the volatility of consumption growth and the three indicators of financial integration using a shorter rolling window of 32 quarters (8 years). Regression results using the reconstructed variables are shown in Tab. F.7 and F.8 for developed and emerging countries respectively. With respect to developed countries a few results are noteworthy. First, financial integration, proxied by the standard correlation (Panel A) is positive for all countries (except for Japan) and also significant for Canada and United States. The result holds for the latter when using the R^2 (Panel B). Results using the R^2 and θ are very similar and in line with what reported in Table 4.1. Overall the relationship between financial integration and consumption smoothing is not clear and in some cases empirical results are at odds with theoretical models predictions. Differently, estimates of the two measures of good market and financial openness are consistent with the theory in most of the cases. Actually, FO is significant for Canada, no matter which financial integration measure is included in

[6] Due to data availability India, Korea and Turkey have been excluded.

the model. Moreover, also trade openness is significant for one country, specifically for the United States.

Table F.8 depicts the regression results for emerging countries. Starting from Panel A, where ρ is employed to proxy financial integration, the most relevant result regards the positive and significant coefficient of FI for Chile and India. Also, most of the countries show an increase, *ceteris paribus*, of consumption volatility following a rise in financial integration. Actually, only Greece and Hungary attained, on average, some benefits from equity market integration. The estimates are however non significant. Still, in Panel B two countries enter with a positive and significant financial integration coefficient, at odds with the theory. Specifically, Brazil and South Africa experienced losses and less macroeconomic stability as financial integration, as measures by the R^2, rose. With regard to the other countries, the framework depicts a mixed evidence of the well know IBC facts (i.e., as financial integration increases, consumption volatility drops). This is also confirmed for Panel C, where financial integration is measured by the Diebold and Yılmaz (2012) spill over index. Some countries enter with a positive coefficient, whereas some others show a negative coefficient consistent with the theory. Notably, trade openness is instead found to meet theoretical predictions. In all three Panels, TO is negative (and significant in a few cases) for most of the countries. Differently, financial openness has not significantly improved consumption smoothing. When consumption volatility and the three indicators of financial integration are constructed using a longer window (see Table 4.2 FO was significantly welfare improving in the sense of less volatility of consumption for some countries). In general, the three financial integration measures are more robust to the size of the rolling window for developed countries. Emerging countries instead show some noteworthy differences with what reported in Table 4.2.

GARCH In this robustness check I construct the volatility of consumption growth using a different specification. In particular, I model the volatility of consumption using a GARCH(4,4) model. Time-series estimates for developed countries are reported in Table F.9. When financial integration in the sample is represented by the standard correlation, entries in Panel A suggest that there is once again heterogeneity in the effect of FI on consumption smoothing. Differently than in the baseline case (see Table 4.1), Canada, France and United States seem to have attained some benefits from more equity market integration. Germany and Japan instead, now enter with a positive coefficient. Nevertheless, estimates are not significant. With regard to *FO* and *TO*, coefficient are in most of the cases at odds with the theory. Panel B reports the regression results using the R^2 as a proxy for financial integration. Notably, Italy and UK show a negative coefficient consistent with the theory, despite not significant. Additionally, for France *FI* is negative and significant at 10%. No other remarkable changes are reported. Last, entries in Panel C show the estimates when employing the Diebold and Yılmaz (2012) spill over index. The effect of financial integration on consumption volatility is always positive (and significant for France) in all cases, except for United States.

Table F.10 depicts the estimated coefficients for emerging countries. Entries in Panel A show that the effect of *FI*, when the latter is proxied by ρ, is positive for seven out of eleven countries. Chile, Greece, Hungary and Poland are the only countries which had, on average, attained some welfare gains in terms of more consumption smoothing. Overall, financial openness is positively associated to consumption volatility, contrary to theoretical predictions. Differently, good market integration is for most of the countries welfare improving and significant for Brazil and Chile. When using the R^2 only one difference is notable: financial integration has now a positive effect on consumption smoothing for Brazil and Turkey. *FO* estimates are still negative (in general) and significant for Brazil and Chile. Finally, the spill over index performs worse in capturing risk-sharing opportunities compared with the other two indicators. Brazil, Greece and Hungary FI coefficients are no longer negatively associated with consumption volatility. Still, I report negative and significant *TO* estimates for Brazil and Chile.

Overall, this test confirms the conclusions drawn on the main results.

Quantile Regression According to Evans and Hnatkovska (2007a), financial integration increases consumption volatility when a country moves from financial autarky to being low integrated. Welfare gains in terms of consumption smoothing are attained only once the process of integration is close to be complete. The intuition of the authors is that, under high integration, shares of internationally traded equity becomes available and are used by individuals to insure country-specific traded risks (i.e. risk related to the good market). According to this argument some asymmetries and non linear effect should be observed. For all countries in the two groups, I estimate a quantile regression on the 20th and 80th percentiles, which respectively represent the situation in which a country is high integrated and low integrated. The interpretation is straightforward: under financial autarky and low integration countries are characterized by high consumption volatility, whereas under high integration volatility of consumption decreases. The first framework is represented by the 80th percentile (i.e. right-wing extreme values of consumption volatility). The 20th percentile represents the situation in which the volatility is low and the country is well integrated. Tables F.11 and F.12 reports the quantile regression estimates on developed and emerging countries respectively. The intuition of Evans and Hnatkovska (2007a), namely that of welfare gains in terms of consumption smoothing, holds only is few cases. In particular, in Canada (Panel A and B) and Japan and Italy (Panel B). However, the estimates are never significant. Goods and financial openness, in general, do not have significant effects on consumption volatility. Actually only in a few cases statistically significant estimates are observed: first, FO is welfare improving in Canada when the regression is run on the 80th percentile (i.e. when the country is under financial autarky or low integrated). Second, and once again when considering the 80th percentile, consumption volatility in the United States decreases following a rise in trade openness.

Once again, the theoretical prediction of Evans and Hnatkovska (2007a) is rarely verified and not for all measures of financial integration. In Panel A only Hungary is consistent with the result of the authors. When using the R^2, Brazil, Chile, Israel and Turkey show FI estimates which confirm the prediction of the theory. Finally, in Panel C Israel and Turkey are the only emerging countries for which the result holds. As for developed countries, I do not observe statistical significance in the coefficients. Actually only when using ρ to proxy financial integration in Turkey financial integration estimates on the 80th percentile are significant at 10%. Overall, TO and FO provide mixed evidence of improved consumption smoothing following more openness.

Bond Market Integration What if other channels of risk-sharing are more capable of providing macroeconomic stability? Cimadomo et al. (2018) show that the equity market provided only little welfare gains in the last twenty years, at least in the euro area. In a similar fashion, De Vijlder (2018) considers many channels other than capital which might provide risk-sharing opportunities. In the literature, a notable attempt to address the effects of non-equity market integration on macroeconomic stability is from Xu and Corbett (2019), that construct the Diebold and Yılmaz (2012) spill over index based on the credit market channel. In this test I construct the three price-based measures of financial integration using long term government bond interest rates from the OECD. Due to data availability this test is performed on developed countries only.

Time-series estimates are reported in Table F.13. Interestingly, ρ is, on average, welfare improving (in the sense of less consumption volatility) in all countries, except in the United States (Panel A). The R^2 outlines a different link between bond market integration and consumption smoothing. First, there is now evidence of improved macroeconomic stability in the United States following a rise in the R^2. Secondly, and differently than in Panel A, financial integration coefficients in Canada, France, Japan and United Kingdom enter with a positive sign. Nevertheless, the estimate is significant only for Canada. Finally, Panel C reports the regression results when the θ is included as a measure of financial integration. Overall, the estimates provide mixed evidence of improved consumption smoothing when financial integration increases, in line with what is reported in Table 4.1.

5.2 Panel Fixed Effect

Subprime Crisis Similarly to what has been done in the last section, I include a dummy to control for the Subprime Crisis period in the dynamic fixed effect panel regression model. Developed and emerging countries estimation results are reported in Table F.14. The crisis dummy is everywhere positive, but significant only for developed countries. Still, all the indicators of financial integration are not significant. With respect to *FO* and *TO*, their effect is different in the two country-groups: for DEV both openness measures imply an increase in consumption volatility, whereas in EM, an increase in either financial or trade openness has on average a positive effect on macroeconomic stability. No other notable differences are reported.

Income Volatility As what has been done in a time-series framework, I re-estimated the dynamic fixed effect model using the volatility of income as a measure of the degree of risk-sharing. In the long run, all the three measures confirm that income volatility rises after an increase in equity market integration. The estimates are also significant for developed countries. Similar conclusions can be drawn for the short-run coefficients with a few differences. First, the spill over index in developed countries is negative, but its effect on income volatility is very limited. Similarly, ρ in emerging countries enters with a negative (but small) coefficient. The R^2 and θ in emerging countries are both significant at 10%. Additionally, the speed of convergence to the long-run equilibria is always negative and significant, but in one case for developed countries when FI is proxied by the R^2. Similarly, as in the baseline case reported in Table 4.3, FO and TO are consistent with theoretical results, i.e. they are welfare improving in terms of more risk-sharing. For both country groups these coefficient are statistically significant. Finally, CPI reduces, on average, the volatility of income in developed countries, but not in emerging ones. Nevertheless, the effect is actually very limited.

Real Exchange Rate Volatility Once again, I test a well known IBC fact (i.e., higher financial integration is associated with more REER volatility) in a panel framework. Dynamic fixed effect estimates are shown in Table F.16. The empirical evidence of that IBC fact is still weak. In the long-run and for developed countries the estimated coefficient of financial integration is consistent with the theory only when using ρ and R^2, despite never significant. In the short-run all three indicators enter with a positive but not significant coefficient. For emerging countries, there is no evidence of more REER volatility under high financial integration. Actually, the estimated coefficients are always negative in the long-run and positive (and still non-significant) in the short-run only when FI is proxied by the standard correlation and the spill over index.

Different Rolling Window I replicate the test using the relevant variables constructed using a shorter rolling window, namely 32 quarters, in a panel framework. The estimates produced by the dynamic fixed effect model are reported in Table F.17. Differently from the benchmark case, financial integration, no matter by which measure is proxied, implies more consumption smoothing in the long run for developed countries (the estimate is moreover significant at 1% when using θ). In the short-run, FI is positively (negatively) associated to consumption volatility when ρ and R^2 (θ) are included in the regression. Importantly, FO increases, on average, the volatility of consumption, whereas trade openness improves consumption smoothing.

Emerging countries provide mixed evidence for long-run benefits of financial integration. The coefficient is consistent with the theory only when FI is proxied by the R^2 and at odd for the other two indicators. Moreover, emerging countries experience welfare losses in the short-run when financial integration increases. The estimated coefficients are however not significant. Similarly to developed countries, financial openness increases the volatility of consumption and trade openness is instead welfare improving.

GARCH Once again, I model the volatility of consumption growth according to a GARCH(4,4) model. The DFE regression model estimates negative and consistent FI coefficients in the long-run for developed countries, only when using the R^2. Differently, in the short-run financial integration is always improving consumption volatility, but significance only in specification (1) for developed countries. Financial openness does not change dramatically for developed countries with respect to Table 4.3, whereas the estimates for EM are now positive and non-significant. Also trade openness is now positive (i.e. more consumption volatility) in developed countries.

Quantile Regression As previously done , I estimate a quantile regression model on the 20th and 80th percentiles in a panel framework to investigate the asymmetric effects predicted by the model of Evans and Hnatkovska (2007a) of financial integration on consumption smoothing. Results of this robustness check are shown in Table F.19. The coefficient associated to financial integration is negative when the 20th percentile is considered and positive when the regression is run on the 80th, only when ρ and R^2 for developed countries and only when using the ρ in emerging countries. In both country-groups, financial integration, when proxied by the spill over index is always positive (more consumption volatility). Financial openness in developed countries is, on average, welfare improving only when the volatility of consumption is high, but not when its level is low (high integration). Differently, the effect of financial openness is always positive on consumption smoothing in emerging countries. Interestingly, a similar conclusion can be drawn on both country-groups for what regards trade openness: an increase in good market integration implies a drop in consumption volatility, when the latter is high. This result is statistically significant in emerging countries. When instead the volatility of consumption is low, trade openness no longer comes with welfare gains.

Bond Market Integration Whereas financial integration based on the equity market comes with higher consumption volatility in the long-run (see Table 4.3), integration based on bond market prices suggests different conclusions. Firstly, ρ and θ in the long-run are still positive, but no longer significant. Secondly, the R^2 is negative (less consumption volatility) and highly significant. The framework in the short-run is however different: ρ and θ are now negative (but only the standard correlation is statistically significant) and the R^2 increases, on average, the short-run consumption volatility. The speed of convergence to the long-run equilibrium is statistically significant at any reasonable confidence level. Financial and trade openness are found to be consistent with theoretical predictions. The estimates are also significant in specifications (1) and (2), when the standard correlation and the R-squared respectively are included.

5.3 Pooled Mean Group

Subprime Crisis Once again, I include a dummy to represent the Subprime crisis in my sample for the pooled mean group estimation. Table F.21 shows the short- and long-run estimated coefficients for developed countries. The dummy is always positive (i.e. leading to higher consumption volatility), but significant only for Canada, United Kingdom and United States. With regards to the long-run financial integration coefficient, it enters with a positive sign and is statistically significant, no matter which indicator proxies financial integration. The magnitude is almost indistinguishable when ρ and θ. When instead the R^2 is employed, the coefficient is larger, implying less welfare gains, compared to the baseline case presented in Table 4.4. In the short-run FI has different effects on consumption volatility across financial integration indicators and countries. The speed of convergence to the long-run equilibrium is instead found to be always negative and significant for most of the countries: the negative sign suggests that those countries are converging to the long run equilibrium, where FI does not provide more risk-sharing.

In Table F.22 the emerging countries regression results are shown. As in the time series regression, not all the countries suffered from the Subprime crisis in terms of less consumption smoothing. For instance, Chile has an always negative and significant coefficient and India had on average less consumption volatility during the crisis period when financial integration is proxied by the standard correlation and the spill over index, but not when the R^2 is employed. The long-run FI coefficient is everywhere negative and significant, except in Panel C. Yet the convergence to this equilibrium is rarely significant. Looking at the short-run FI estimates, they provide mixed evidence of improved consumption smoothing following a rise in financial integration, as predicted by the theory. The effect of FI is rarely significant and even positive in some countries. In particular, Brazil is not benefiting from more integration in the short-run. No clear conclusion can be drawn for the other regressors, namely good market and financial openness and CPI: besides the overall lack of significance in the estimated coefficient, the sign is not consistent among countries. Due to the high heterogeneity in macroeconomic conditions this is a rather expected result.

In general, controlling for the period 2007:Q3 - 2009:Q2 does not dramatically alter the estimates and the conclusions on them.

Income Volatility Financial integration implications on income volatility are similar to those in Table 4.4. The long-run coefficient financial integration, no matter which measure is included, is always significant and positive for developed countries, although the effect on income volatility is small compared to the baseline case (see Tables 4.4 and F.23). In the short-run instead, few countries (and not for all indicators of financial integration) show a positive effect on income smoothing following a rise in risk-sharing opportunities. The speed of convergence to the long-run equilibrium is significant and negative for almost all countries and for all indicators of financial integration. Financial and good market integration are consistent with theoretical predictions (i.e. more integration implies more risk-sharing) and significant in almost all the cases.

Contrary to what reported in Table 4.5, Table F.24 reports a long-run coefficient of financial integration which is positive and significant for all the three measures. Differently, short-run estimates of financial integration are in line with those previously reported: some countries, on average, are attaining some welfare benefits (less income volatility), other, such as Hungary (Panel A and B) and India (Panel A, B, and C) are suffering from equity market integration. The effect of trade openness on income volatility is negative in most of the countries (and consistent with the theory) but rarely significant. Financial openness is significantly welfare improving for Israel and Korea only (a similar conclusion on Korea is reported in Table 4.5 when using the volatility of consumption as a measure for the risk-sharing degree). In both country groups and no matter which indicator of financial integration is considered, increasing equity market integration comes with no benefits in terms of reduced income volatility. Actually, in the long-run an increase in financial integration, on average, worsens income smoothing. Also, for a few countries, the speed of convergence to the long-run equilibrium is non significant and/or positive. This issue might indicate either that there is no significant long-run relationship between financial integration and income volatility or it indicates a misspecification of the model.

Real Exchange Rate Volatility Finally I test the relationship between financial integration and real exchange rate volatility using the pooled mean group estimator.[7] Regression results are shown in Table F.25. Differently than what have been observed in time-series framework and using the dynamic fixed effect model, here the long-run coefficient of financial integration suggests a positive and significant effect on the volatility of the real exchange rate. Nevertheless, the error correction model enter with a negative coefficient only in few cases. In most of the countries the latter is positive and significant, thus indicating a deviation and departure from the long-run equilibrium. A possible explanation for the positive error correction coefficient might rely on the fact that there does not exists a long-run relationship

[7] Due to non-concave likelihood function the algorithm could not converge for emerging countries.

among real exchange rate volatility and the price-based indicators of financial integration, which mainly capture international price convergence and not risk-sharing opportunities. Short-run estimates of financial integration on REER volatility cannot confirm the tested IBC fact: the coefficients are positive only in few cases. Notably the estimates are consistent with the theory for France, Japan, UK and US (Panel A, B and C). This results suggests that either international price convergence is not a good proxy for financial integration or that risk-sharing opportunities are not fully exploited, namely international capital trade is limited.

Different Rolling Window Similarly to the dynamic fixed effect estimates (see Table F.17) and once again differently from the benchmark case reported in Table 4.4, financial integration in the long-run comes with (non significant) welfare gains in terms of reduced consumption volatility. In the short-run there is heterogeneity in the implications of equity market integration on consumption volatility. First, in some cases the coefficient of FI is positive and significant. Most countries suggest different effects of financial integration in the short-run, according to which measure is employed. For instance, the coefficient of FI for Italy is negative (positive) when R^2 (θ) is included in the model. With respect to the two openness measures, namely financial and trade, their effect on consumption smoothing is for almost all countries negative, i.e. as FO or TO increases, on average consumption volatility reduces.

Not surprisingly, the three indicators of financial integration are not robust to the length of the rolling window for emerging countries as well. The long-run coefficient associated with financial integration is negative (but not significant) only in Panel A and C, where the included indicator is the standard correlation and spill over index respectively. In Panel B, the coefficient is instead positive (contrary to the theory) and significant. Still, in the short-run FI comes with losses for most of the countries. Actually, only for Israel in Panel B the coefficient is negative and significant. Financial openness implications on macroeconomic stability varies among countries. Korea for instance benefited from more openness, whereas Poland attained losses. Trade openness is instead in most of the countries associated with less consumption volatility.

Overall, it is difficult to outline the relationship between financial integration and consumption volatility from this empirical test.

GARCH According to the results reported in Table 4.4, financial integration in developed countries has a negative effect on consumption smoothing, constructed using a rolling window of 40 quarters (see Table F.28). Differently, when consumption volatility is modelled as a GARCH(4,4) model, the effect of financial integration on it in the long-run is negative and significant. Also the speed of convergence to this long-run equilibrium is statistically significant for all countries. Opposed to this framework, in the short-run only United States was able to attain significant welfare gains in terms of more consumption smoothing. In some other cases, such as for Canada and France when θ is included, financial integration in the short-run comes with less macroeconomic stability. In spite of financial openness coefficient enters with a negative sign, it is significant only for United Kingdom. Differently from the baseline case (Table 4.4), trade openness increases the volatility of consumption in most of the countries (and significantly in the United States). The level of prices has in general a positive effect on consumption smoothing.

Emerging countries estimates of financial integration in the log-run is no longer negative nor significant when consumption volatility is constructed using a GARCH model. Financial integration seems to be more welfare improving in the short-run, particularly in Chile (Panel A and C), Greece (Panel A) and Korea (Panel B). Taken together, the effect of financial integration is not clear. Notably and at odds with the theory, financial openness has a positive and highly significant effect in Chile. For what regards trade openness, more good market integration comes with welfare gains only for some countries (see for instance Brazil and Chile), while for some others it actually increases the volatility of consumption.

Bond Market Integration Results produced by the pooled mean group estimator (Table F.30) are reconcilable with the dynamic fixed effect estimates (Table F.20). Only a one difference is noteworthy. The β_{FI} in Panel A and C are now highly statistically significant. Once again, an increase in financial integration proxied by either the standard correlation or the spill over index comes with more volatility in the long-run. At the contrary, the R^2 is associated with more consumption smoothing in the same time period. In the short-run, all financial integration measures agree with each other. The coefficients enter in most of the countries with a negative sign, this being consistent with the theory. In some countries this evidence is statistically strong. Convergence to the equilibrium is however significant only in few cases. Once again, the non significance of the error correction coefficient is a sign of non-existence of a significant long-run relationship among the variables. With regard to the two openness measures, they are found to be barely consistent with the theory (i.e., financial and good market integration helps to smooth consumption volatility).

6 Conclusions

The fact that financial integration comes (at least when the process is complete) with welfare gains in terms of reduced consumption volatility is well established in the international business cycle literature. Sutherland (1996), Pommeret and Epaulard (2005), Evans and Hnatkovska (2007a) and Levchenko (2005) among others show that financial integration increases risk-sharing opportunities, which, if exploited, play a role in determining the degree of consumption smoothing. Although this result is peacefully accepted in the IBC literature, there have been many empirical attempts in addressing the implications of financial integration on consumption volatility. Those works must be distinguished in two categories. For instance, Kose et al. (2003), Kose et al. (2009) and Neaime (2005) measure financial integration by means of quantity-based indicators. Results using this kind of indicators do not clearly outline the relationship among consumption smoothing and financial integration. More recently, a robust category of indicators has been developed, namely price-based indicators (see Billio et al. (2017) for a review of these measures). Actually, to the best of my knowledge, there has been no work studying the performance of these price-based indicators in capturing consumption volatility dynamics.

In this work I constructed two widely tested price-based measures of financial integration, namely the standard correlation and the adjusted R-squared and one measure that has never been applied in this framework. Specifically, I employed the Diebold and Yılmaz (2012) spill over index as an additional measure for financial interconnectedness. Following the intuition of Evans and Hnatkovska (2007a) and Levchenko (2005) I address the link between financial integration and consumption smoothing, focusing on the short- and long-run implications. According to authors, financial integration comes with welfare gains only when the process is complete, i.e. when all assets are tradable by all economic agents. Given this result, I study the nexus between equity market integration and consumption volatility in a time-series and in a panel framework. In this regard, I apply two panel regression models, namely the dynamic fixed effect and the Pesaran et al. (1999) pooled mean group, both expressed in error correction form, such that the cointegration between the indicators of financial integration and the proxy for risk-sharing is taken into account.

Results suggest that financial integration effects differ among advanced economies and emerging countries, especially if these are investigated in a panel framework. Moreover, in developed countries financial integration in the long-run deteriorates risk-sharing and the speed of convergence to this long-run equilibrium is highly significant. Differently, in emerging ones, for which the integration process started later and is not yet complete, the long-run effect of financial integration improves consumption smoothing. This results are however only partially confirmed by the robustness checks. The evidence of improved consumption smoothing following a rise in financial integration is rather weak when the short-run is taken into account. According to Guiso et al. (2016) cultural factors play a role in speeding up or slowing down the process of integration.

The first decade of 2000 has been characterized by increased financial integration for both country-groups. Actually, equity market integration decreased after the Subprime crisis in developed countries and has instead remained stable in emerging ones. Consumption volatility in the two groups followed a very similar pattern. However, there is no strong evidence about the fact that more integrated markets come with increased risk-sharing opportunities and thus with less consumption volatility.

As shown in Billio et al. (2017), rising equity market integration, by means of a battery of price-based indicators, is associated with a drop in diversification benefits. Loosely speaking, as markets become more integrated returns tend to be highly positively correlated and a reduction in diversification of risk follows as a consequence. Intuitively, this phenomenon thus leads to increased contagion risk. Elliott et al. (2014) show that there exists a trade-off between integration and diversification. More recently this intuition is confirmed at the firm level by Cabrales et al. (2017). Basically, as long as markets are not correlated, more integration (i.e., allowing and easing international trade) brings welfare gains following the exploitation of risk-sharing opportunities, but when financial markets tend to be primarily driven by the same (global) shocks, these opportunities to hedge risk vanish.

Financial integration, followed by international price convergence does thus not necessarily lead to improved macroeconomic stability. Plazzi (2009) and Akbari et al. (2019) indicate that economic and financial integration are two separate phenomena. The latter is associated to risk-sharing opportunities (and thus to less consumption volatility), whereas the former relates to a synchronization of business cycles (which leads to increases firms' cash flow correlation). It is thus of first order importance to account for both phenomena when studying the effect of financial integration on macroeconomic stability and in particular one should ask whether benefits of more integrated equity markets exceed the drawback of increased and amplified contagion risk.

In this work I mainly focused on the equity markets to relate risk-sharing opportunities with consumption volatility dynamics. As shown in Cimadomo et al. (2018), there are other channels through which consumption smoothing can be improved, maybe more effective than the equity channel. Actually, a test on developed countries provides mixed evidence of the performance of bond price-based indicators in capturing risk-sharing dynamics.

This work can be extended in several directions. First, financial integration is not only associated with less consumption volatility. International business cycle studies indicate that increasing financial integration lead to (i) more productivity growth (Pommeret and Epaulard (2005)), (ii) high real exchange rate volatility (Donadelli and Paradiso, 2014) and (iii) low Backus-Smith anomaly. Future research will surely take into account these IBC facts and empirically test their validity. Second, as aforementioned, to truly understand the implication of financial integration it is necessary to disentangle it from economic integration, which undermines risk-sharing opportunities and increases contagion risk among integrated financial markets. In this respect, the methodology of Akbari et al. (2019) will be considered and a firm-level dataset is needed. Third, other channels might be more effective than the equity market to share risk (see Asdrubali et al. (2018)). Improvements of this work would include a deeper focus on the bond market (at different maturities), the credit channel and the role of government consumption. Fourth and last, in this work I have only included a (biased) quantity-based measure of financial integration. However, to assess whether risk-sharing opportunities are truly exploited it is important to measure the inflow and outflow of portfolios and capital consistently. Broadly speaking taking into account the diversification of these financial flows, would lead to a deeper understanding about the role financial markets in hedging idiosyncratic shocks. All these additional tests are left for future research.

A Data Source

Table A.1: Data source

ID	Variable	Source	Sample
Consumption	Private final consumption expenditure, GPSA: Growth rate compared to previous quarter, seasonally adjusted	OECD	1990Q1:2018Q4
Share Price Index	Share Prices, Index, 2010=100	OECD	1990Q1:2018Q4
FDI	Foreign direct investment, net inflows (BoP, current US$)	World Bank Data	1990Q1:2017
Imports	Imports of goods and services, VPVOBARSA: US dollars, volume estimates, fixed PPPs, OECD reference year, annual levels, seasonally adjusted	OECD	1990Q1:2018Q4
Exports	Export of goods and services, VPVOBARSA: US dollars, volume estimates, fixed PPPs, OECD reference year, annual levels, seasonally adjusted	OECD	1990Q1:2018Q4
GDP	Gross domestic product - expenditure approach, VPVOBARSA: US dollars, volume estimates, fixed PPPs, OECD reference year, annual levels, seasonally adjusted	OECD	1990Q1:2018Q4

B Summary Statistics

Table B.1: Summary Statistics

		CS	TO	CPI	FO	ρ	R^2	θ
					DEV			
Canada	Mean	0.506	0.622	90.294	0.033	0.853	0.963	0.773
	Std. Dev.	0.070	0.021	8.988	0.019	0.077	0.021	0.056
France	Mean	0.505	0.559	92.472	0.028	0.957	0.951	0.810
	Std. Dev.	0.115	0.054	7.315	0.019	0.029	0.044	0.031
Germany	Mean	0.650	0.762	91.790	0.015	0.941	0.936	0.808
	Std. Dev.	0.158	0.124	7.450	0.006	0.032	0.035	0.029
Italy	Mean	0.568	0.527	90.501	0.053	0.903	0.948	0.790
	Std. Dev.	0.094	0.049	8.906	0.035	0.048	0.030	0.047
Japan	Mean	0.828	0.281	98.010	0.005	0.705	0.999	0.666
	Std. Dev.	0.206	0.039	1.507	0.003	0.137	0.001	0.174
United Kingdom	Mean	0.679	0.579	88.200	0.005	0.883	0.944	0.792
	Std. Dev.	0.106	0.041	10.614	0.004	0.083	0.046	0.039
United States	Mean	0.469	0.275	89.504	0.018	0.871	0.917	0.787
	Std. Dev.	0.054	0.028	10.361	0.006	0.109	0.076	0.057
					EM			
		CS	TO	CPI	FO	ρ	R^2	θ
Brazil	Mean	1.156	0.209	72.994	0.702	0.876	0.748	0.768
	Std. Dev.	0.135	0.027	23.899	0.572	0.072	0.151	0.157
Chile	Mean	1.215	0.565	83.323	3.602	0.621	0.905	0.767
	Std. Dev.	0.050	0.063	14.651	2.012	0.208	0.047	0.075
Greece	Mean	1.368	0.429	91.850	0.488	0.654	0.969	0.693
	Std. Dev.	0.636	0.093	10.655	0.575	0.228	0.036	0.167
Hungary	Mean	1.238	0.431	82.864	7.761	0.731	0.593	0.815
	Std. Dev.	0.224	0.050	17.497	18.992	0.294	0.102	0.059
India	Mean	2.155	0.652	67.513	0.606	0.712	0.902	0.806
	Std. Dev.	0.695	0.046	26.293	0.465	0.336	0.091	0.069
Israel	Mean	1.285	0.674	90.323	2.733	0.714	0.925	0.784
	Std. Dev.	0.169	0.034	8.953	1.896	0.259	0.023	0.095
Korea	Mean	1.781	0.902	87.408	1.672	0.647	0.974	0.724
	Std. Dev.	0.823	0.166	12.192	0.682	0.292	0.008	0.151
Mexico	Mean	1.350	0.602	81.040	0.783	0.742	0.846	0.818
	Std. Dev.	0.340	0.073	18.168	0.436	0.312	0.046	0.065
Poland	Mean	0.593	0.805	89.014	1.015	0.811	0.640	0.836
	Std. Dev.	0.145	0.134	10.960	0.859	0.227	0.201	0.039
South Africa	Mean	0.745	0.581	76.058	0.646	0.693	0.904	0.788
	Std. Dev.	0.163	0.034	22.026	1.123	0.223	0.048	0.081
Turkey	Mean	2.325	0.446	67.576	0.316	0.708	0.932	0.772
	Std. Dev.	0.256	0.032	33.230	0.153	0.260	0.023	0.097

Notes: This table reports the mean and standard deviation for each country. Variables: CS := consumption volatility, TO := trade openness, CPI := consumer price index, FO := financial openness, ρ := standard correlation, R^2 := adj. R-squared, θ := spill over index. Sample: 2000:Q1 - 2018:Q4

C Unit Root Tests

C.1 Time-Series analysis

Developed Countries

Table C.1: Unit Root test - Levels

		CS	ρ	R^2	θ	FO	TO	CPI
Canada	t-stat	-1.856	-1.384	-4.126	-1.421	-3.515	-3.098	-0.543
	p-value	0.353	0.590	0.001	0.572	0.008	0.027	0.883
	Obs.	74	74	74	74	67	74	74
France	t-stat	-1.972	-1.763	-1.433	-1.333	-5.002	-1.442	-2.030
	p-value	0.299	0.399	0.566	0.614	0.000	0.562	0.273
	Obs.	76	76	76	76	67	76	76
Germany	t-stat	-2.705	-1.979	-2.219	-1.424	-2.658	-0.061	-1.615
	p-value	0.073	0.296	0.199	0.571	0.082	0.953	0.475
	Obs.	76	76	76	76	67	76	76
Italy	t-stat	-2.520	-1.626	-1.170	-1.619	-3.506	-8.563	-1.823
	p-value	0.111	0.470	0.686	0.473	0.008	0.000	0.369
	Obs.	76	76	76	76	67	76	76
Japan	t-stat	-1.026	-1.869	-35.188	-1.786	-3.615	-9.129	-2.477
	p-value	0.744	0.347	0.000	0.388	0.005	0.000	0.121
	Obs.	76	76	76	76	67	76	76
United Kingdom	t-stat	-3.895	-1.320	-2.197	-4.731	-4.016	-5.565	-1.146
	p-value	0.002	0.620	0.207	0.000	0.001	0.000	0.696
	Obs.	76	76	76	76	67	76	76
United States	t-stat	-3.658	-1.449	-1.803	-1.688	-3.262	-12.756	-1.750
	p-value	0.005	0.559	0.379	0.438	0.017	0.000	0.406
	Obs.	76	76	76	76	67	76	76

Notes: This table shows the t-statistic, p-value and number of observations of the unit root test (Said and Dickey, 1984) for developed countries on variables expressed in levels. Variables: CS := consumption volatility, TO := trade openness, CPI := consumer price index, FO := financial openness, ρ := standard correlation, R^2 := adj. R-squared, θ := spill over index. Sample: 2000:Q1 - 2018:Q4

Table C.2: Unit Root test - First Difference

		CS	ρ	R^2	θ	FO	TO	CPI
Canada	t-stat	-4.450	-6.988	-5.310	-10.575	-3.178	-4.819	-11.420
	p-value	0.000	0.000	0.000	0.000	0.021	0.000	0.000
	Obs.	73	73	73	73	73	73	73
France	t-stat	-5.137	-6.471	-6.811	-8.040	-4.693	-4.773	-5.992
	p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Obs.	73	73	73	73	73	73	73
Germany	t-stat	-5.312	-6.325	-6.180	-8.945	-4.391	-4.846	-8.451
	p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Obs.	73	73	73	73	73	73	73
Italy	t-stat	-4.913	-5.978	-6.325	-7.898	-4.211	-4.719	-5.002
	p-value	0.000	0.000	0.000	0.000	0.001	0.000	0.000
	Obs.	73	73	73	73	73	73	73
Japan	t-stat	-5.816	-4.588	-8.585	-6.682	-4.330	-6.478	-5.775
	p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Obs.	73	73	73	73	73	73	73
United Kingdom	t-stat	-3.357	-5.155	-4.709	-7.602	-4.063	-8.352	-4.344
	p-value	0.012	0.000	0.000	0.000	0.001	0.000	0.000
	Obs.	73	73	73	73	73	73	73
United States	t-stat	-4.870	-5.393	-4.743	-8.114	-4.463	-5.360	-10.048
	p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Obs.	73	73	73	73	73	73	73

Notes: This table shows the t-statistic, p-value and number of observations of the unit root test (Said and Dickey, 1984) for emerging countries on variables expressed in levels. Variables: CS := consumption volatility, TO := trade openness, CPI := consumer price index, FO := financial openness, ρ := standard correlation, R^2 := adj. R-squared, θ := spill over index. Sample: 2000:Q1 - 2018:Q4

Emerging Countries

Table C.3: Unit Root test - Levels

		CS	ρ	R^2	θ	FO	TO	CPI
Brazil	t-stat	-2.583	-3.101	-2.977	-2.178	-4.195	-1.236	1.095
	p-value	0.097	0.026	0.037	0.214	0.001	0.658	0.995
	Obs.	49	74	73	74	71	74	74
Chile	t-stat	-2.583	-2.366	-2.032	-1.397	-2.568	-4.570	-2.310
	p-value	0.097	0.151	0.273	0.584	0.100	0.000	0.169
	Obs.	53	76	73	76	71	76	76
Greece	t-stat	-0.531	-1.533	-3.929	-1.181	-3.752	-3.523	-2.077
	p-value	0.886	0.517	0.002	0.682	0.003	0.007	0.254
	Obs.	76	76	73	76	71	76	76
Hungary	t-stat	-1.240	-3.096	-2.469	-1.058	-3.343	-2.021	-1.374
	p-value	0.656	0.027	0.123	0.732	0.013	0.278	0.595
	Obs.	53	70	69	76	71	76	76
India	t-stat	-2.423	-2.007	-4.760	-1.524	-2.184	-5.038	-1.206
	p-value	0.135	0.283	0.000	0.522	0.212	0.000	0.671
	Obs.	48	76	73	76	71	76	76
Israel	t-stat	-1.093	-1.738	-1.267	-1.624	-3.633	-2.986	-3.025
	p-value	0.718	0.412	0.644	0.471	0.005	0.036	0.033
	Obs.	53	76	73	76	71	76	76
Korea	t-stat	-1.395	-1.312	0.231	-0.848	-1.673	-0.881	-1.368
	p-value	0.585	0.624	0.974	0.805	0.445	0.794	0.597
	Obs.	76	76	73	76	71	76	76
Mexico	t-stat	-2.394	-1.918	-3.066	-1.462	-4.335	-6.336	-1.168
	p-value	0.144	0.324	0.029	0.552	0.000	0.000	0.687
	Obs.	76	76	73	76	71	76	76
Poland	t-stat	0.277	-3.738	-3.219	-1.071	-3.468	0.172	-2.690
	p-value	0.976	0.004	0.019	0.726	0.009	0.971	0.076
	Obs.	53	68	67	76	71	76	76
South Africa	t-stat	-2.221	-1.998	-2.545	-1.437	-3.401	-14.288	-0.978
	p-value	0.199	0.287	0.105	0.564	0.011	0.000	0.761
	Obs.	76	76	73	76	71	76	76
Turkey	t-stat	-0.997	-1.647	-0.842	-1.065	-2.316	-5.841	-1.084
	p-value	0.754	0.458	0.807	0.729	0.167	0.000	0.722
	Obs.	41	76	73	76	71	76	76

Notes: This table shows the t-statistic, p-value and number of observations of the unit root test (Said and Dickey, 1984) for developed countries on variables expressed in first difference. Variables: CS := consumption volatility, TO := trade openness, CPI := consumer price index, FO := financial openness, ρ := standard correlation, R^2 := adj. R-squared, θ := spill over index. Sample: 2000:Q1 - 2018:Q4

Table C.4: Unit Root test - First Difference

		CS	ρ	R^2	θ	FO	TO	CPI
Brazil	t-stat	-3.741	-7.158	-7.675	-6.815	-4.911	-6.611	-4.709
	p-value	0.004	0.000	0.000	0.000	0.000	0.000	0.000
	Obs.	48	73	73	73	70	73	73
Chile	t-stat	-5.996	-5.608	-8.045	-5.440	-3.485	-6.626	-5.687
	p-value	0.000	0.000	0.000	0.000	0.008	0.000	0.000
	Obs.	52	73	73	73	70	73	73
Greece	t-stat	-5.256	-4.915	-9.336	-4.986	-4.255	-5.584	-3.578
	p-value	0.000	0.000	0.000	0.000	0.001	0.000	0.006
	Obs.	73	73	73	73	70	73	73
Hungary	t-stat	-3.990	-5.855	-5.297	-6.603	-3.582	-4.987	-6.860
	p-value	0.001	0.000	0.000	0.000	0.006	0.000	0.000
	Obs.	52	73	68	73	70	73	73
India	t-stat	-4.221	-5.815	-8.399	-4.713	-3.457	-6.156	-7.172
	p-value	0.001	0.000	0.000	0.000	0.009	0.000	0.000
	Obs.	47	73	73	73	70	73	73
Israel	t-stat	-4.407	-4.585	-10.401	-6.511	-4.209	-5.170	-7.017
	p-value	0.000	0.000	0.000	0.000	0.001	0.000	0.000
	Obs.	52	73	73	73	70	73	73
Korea	t-stat	-6.189	-5.403	-10.417	-6.482	-3.407	-5.208	-5.504
	p-value	0.000	0.000	0.000	0.000	0.011	0.000	0.000
	Obs.	73	73	73	73	70	73	73
Mexico	t-stat	-5.106	-5.524	-9.143	-5.699	-4.119	-5.541	-10.152
	p-value	0.000	0.000	0.000	0.000	0.001	0.000	0.000
	Obs.	73	73	73	73	70	73	73
Poland	t-stat	-5.642	-5.973	-4.213	-6.451	-3.874	-7.196	-5.140
	p-value	0.000	0.000	0.001	0.000	0.002	0.000	0.000
	Obs.	52	73	66	73	70	73	73
South Africa	t-stat	-4.065	-5.637	-8.668	-6.518	-4.450	-5.876	-4.416
	p-value	0.001	0.000	0.000	0.000	0.000	0.000	0.000
	Obs.	73	73	73	73	70	73	73
Turkey	t-stat	-4.545	-6.580	-8.572	-6.141	-3.580	-7.084	-0.543
	p-value	0.000	0.000	0.000	0.000	0.006	0.000	0.883
	Obs.	40	73	73	73	70	73	73

Notes: This table shows the t-statistic, p-value and number of observations of the unit root test (Said and Dickey, 1984) for emerging countries on variables expressed in first difference. Variables: CS := consumption volatility, TO := trade openness, CPI := consumer price index, FO := financial openness, ρ := standard correlation, R^2 := adj. R-squared, θ := spill over index. Sample: 2000:Q1 - 2018:Q4

C.2 Panel analysis

Developed Countries

Table C.5: Panel Unit Root test

		Levels		First Difference	
		Statistic	P-value	Statistic	P-value
CS	Inverse chi-squared(14)	16.804	0.267	142.685	0.000
	Inverse normal	-0.941	0.173	-10.291	0.000
	Inverse logit t(39)	-0.878	0.193	-15.063	0.000
	Modified inv. chi-squared	0.530	0.298	24.319	0.000
ρ	Inverse chi-squared(14) P	31.094	0.005	209.561	0.000
	Inverse normal	-2.301	0.011	-13.031	0.000
	Inverse logit t(39)	-2.538	0.008	-22.128	0.000
	Modified inv. chi-squared	3.230	0.001	36.958	0.000
R^2	Inverse chi-squared(14)	33.751	0.002	230.417	0.000
	Inverse normal	-2.717	0.003	-13.587	0.000
	Inverse logit t(39)	-2.988	0.002	-24.330	0.000
	Modified inv. chi-squared	3.733	0.000	40.899	0.000
θ	Inverse chi-squared(14)	28.943	0.011	385.478	0.000
	Inverse normal	-2.603	0.005	-18.486	0.000
	Inverse logit t(39)	-2.617	0.006	-40.703	0.000
	Modified inv. chi-squared	2.824	0.002	70.203	0.000
FO	Inverse chi-squared(14)	77.769	0.000	103.355	0.000
	Inverse normal	-6.804	0.000	-8.448	0.000
	Inverse logit t(39)	-8.185	0.000	-10.908	0.000
	Modified inv. chi-squared	12.051	0.000	16.887	0.000
TO	Inverse chi-squared(14) P	11.449	0.651	196.964	0.000
	Inverse normal	0.964	0.833	-12.344	0.000
	Inverse logit t(39)	0.861	0.803	-20.797	0.000
	Modified inv. chi-squared	-0.482	0.685	34.577	0.000
CPI	Inverse chi-squared(14)	4.327	0.993	300.300	0.000
	Inverse normal	2.757	0.997	-15.484	0.000
	Inverse logit t(39)	2.847	0.997	-31.709	0.000
	Modified inv. chi-squared	-1.828	0.966	54.106	0.000

Notes: This table shows the t-statistic, p-value and number of observations of the unit root test (Choi, 2001) for developed countries on variables expressed in levels and first difference. Variables: CS := consumption volatility, TO := trade openness, CPI := consumer price index, FO := financial openness, ρ := standard correlation, R^2 := adj. R-squared, θ := spill over index. Sample: 2000:Q1 - 2018:Q4

Emerging Countries

Table C.6: Panel Unit Root test

		Levels		First Difference	
		Statistic	P-value	Statistic	P-value
CS	Inverse chi-squared(22)	20.579	0.547	224.651	0.000
	Inverse normal	0.309	0.622	-12.868	0.000
	Inverse logit t(59)	0.311	0.621	-18.834	0.000
	Modified inv. chi-squared	-0.214	0.585	30.551	0.000
ρ	Inverse chi-squared(22)	57.287	0.000	316.022	0.000
	Inverse normal	-4.535	0.000	-15.987	0.000
	Inverse logit t(59)	-4.563	0.000	-26.496	0.000
	Modified inv. chi-squared	5.320	0.000	44.325	0.000
R^2	Inverse chi-squared(22)	66.140	0.000	603.180	0.000
	Inverse normal	-3.717	0.000	-22.703	0.000
	Inverse logit t(59)	-4.376	0.000	-50.572	0.000
	Modified inv. chi-squared	6.654	0.000	87.616	0.000
θ	Inverse chi-squared(22)	17.162	0.754	349.940	0.000
	Inverse normal	0.122	0.549	-16.974	0.000
	Inverse logit t(59)	0.107	0.543	-29.340	0.000
	Modified inv. chi-squared	-0.729	0.767	49.439	0.000
FO	Inverse chi-squared(22)	92.292	0.000	141.717	0.000
	Inverse normal	-6.607	0.000	-9.648	0.000
	Inverse logit t(59)	-7.544	0.000	-11.874	0.000
	Modified inv. chi-squared	10.597	0.000	18.048	0.000
TO	Inverse chi-squared(22)	21.014	0.520	346.969	0.000
	Inverse normal	0.121	0.548	-16.868	0.000
	Inverse logit t(59)	0.148	0.559	-29.091	0.000
	Modified inv. chi-squared	-0.149	0.559	48.991	0.000
CPI	Inverse chi-squared(22)	18.016	0.705	321.407	0.000
	Inverse normal	4.140	1.000	-14.615	0.000
	Inverse logit t(59)	5.060	1.000	-26.586	0.000
	Modified inv. chi-squared	-0.601	0.726	45.137	0.000

Notes: This table shows the t-statistic, p-value and number of observations of the unit root test (Choi, 2001) for emerging countries on variables expressed in levels and first difference. Variables: CS := consumption volatility, TO := trade openness, CPI := consumer price index, FO := financial openness, ρ := standard correlation, R^2 := adj. R-squared, θ := spill over index. Sample: 2000:Q1 - 2018:Q4

D Cointegration

D.1 Time-Series analysis

Table D.1: Engle-Granger Cointegration test

Panel A: ρ	Canada	France	Germany	Italy	Japan	United Kingdom	United States
t-stat	-1.786	-2.058	-1.966	-1.918	-0.965	-2.689	-2.732
N	76	76	76	76	76	76	76

Panel B: R^2	Canada	France	Germany	Italy	Japan	United Kingdom	United States
t-stat	-0.972	-2.028	-2.239	-1.632	-1.316	-2.412	-2.557
Obs.	76	76	76	76	76	76	76

Panel C: θ	Canada	France	Germany	Italy	Japan	United Kingdom	United States
t-stat	-1.717	-1.971	-2.080	-1.964	-0.618	-2.597	-3.154
Obs.	76	76	76	76	76	76	76

Notes: This table depicts the t-statistic of the residual-based cointegration test of Engle and Granger (1987) and usign MacKinnon (2010) critical values (-4.046, 1%; -3.419, 5%; -3.101, **1**0%).
Variables: CS := consumption volatility, TO := trade openness, CPI := consumer price index, FO := financial openness, ρ := standard correlation, R^2 := adj. R-squared, θ := spill over index. Sample: 2000:Q1 - 2018:Q4

Table D.2: Engle-Granger Cointegration test

Panel A: ρ	Brazil	Chile	Greece	Hungary	India	Israel	Korea	Mexico	Poland	South Africa	Turkey
t-stat	-2.561	-2.566	-1.226	-1.266	-2.304	-1.439	-2.406	-2.443	0.113	-1.684	-1.112
N	48	52	73	52	47	52	73	73	52	73	40

Panel B: R^2	Brazil	Chile	Greece	Hungary	India	Israel	Korea	Mexico	Poland	South Africa	Turkey
t-stat	-2.118	-2.861	-0.933	-1.283	-1.831	-1.936	-1.562	-2.371	-0.990	-1.609	-2.419
N	48	52	73	52	47	52	73	73	52	73	40

Panel C: θ	Brazil	Chile	Greece	Hungary	India	Israel	Korea	Mexico	Poland	South Africa	Turkey
t-stat	-2.372	-2.537	-2.094	-1.270	-2.301	-1.186	-4.287	-1.954	0.194	-2.150	-0.972
p-value	0.022	0.014	0.040	0.210	0.026	0.241	0.000	0.055	0.847	0.035	0.337
N	48	52	73	52	47	52	73	73	52	73	40

Notes: This table depicts the t-statistic of the residual-based cointegration test of Engle and Granger (1987) and usign MacKinnon (2010) critical values (-4.170, 1%; -3.485, 5%; -3.147, **1**0%).
Variables: CS := consumption volatility, TO := trade openness, CPI := consumer price index, FO := financial openness, ρ := standard correlation, R^2 := adj. R-squared, θ := spill over index. Sample: 2000:Q1 - 2018:Q4

D.2 Panel analysis

Developed Countries

Table D.3: Pedroni Cointegration test

Panel A: ρ	Test Stats.	v	rho	t	adf
	Panel	8.372	-27.03	-17.39	-14.74
	Group	.	-24.39	-19.85	-16.29
Panel B: R^2	Test Stats.	v	rho	t	adf
	Panel	8.255	-27.42	-17.56	-14.57
	Group	.	-24.68	-20.04	-16.04
Panel C: θ	Test Stats.	v	rho	t	adf
	Panel	8.257	-27.36	-17.47	-12.73
	Group	.	-24.6	-19.93	-13.99

Notes: This table depicts the t-statistic of the residual-based cointegration test of Pedroni (1999). All reported t-statistics are normalised to be distributed under N(0,1)
Variables: CS := consumption volatility, TO := trade openness, CPI := consumer price index, FO := financial openness, ρ := standard correlation, R^2 := adj. R-squared, θ := spill over index. Sample: 2000:Q1 - 2018:Q4

Emerging Countries

Table D.4: Pedroni Cointegration test

Panel A: ρ	Test Stats.	v	rho	t	adf
	Panel	9.487	-33.74	-21.76	-21.67
	Group		-26.58	-24.9	-24.4
Panel B: R^2	Test Stats.	v	rho	t	adf
	Panel	9.421	-32.89	-21.26	-21.19
	Group	.	-25.7	-24.39	-23.94
Panel C: θ	Test Stats.	v	rho	t	adf
	Panel	9.463	-32.9	-21.09	-20.79
	Group	.	-25.75	-24.27	-23.47

Notes: This table depicts the t-statistic of the residual-based cointegration test of Pedroni (1999). All reported t-statistics are normalised to be distributed under N(0,1)
Variables: CS := consumption volatility, TO := trade openness, CPI := consumer price index, FO := financial openness, ρ := standard correlation, R^2 := adj. R-squared, θ := spill over index. Sample: 2000:Q1 - 2018:Q4

E Poolability Test

Table E.1: Hausman test

	DEV		EM	
Panel A: ρ	χ^2	p-value	χ^2	p-value
MG vs. DFE	0.00	0.9977	0.00	0.9726
MG vs. PMG	0.11	0.7417	0.12	0.7305
Panel B: R^2				
MG vs. DFE	0.00	0.9813	0.00	0.9616
MG vs. PMG	0.85	0.3578	0.93	0.3347
Panel C: θ				
MG vs. DFE	0.00	0.9727	0.00	0.9525
MG vs. PMG	-75.98	1	0.09	0.7691

Notes: This table shows the result of the hausman test performed for MG *vs.* DFE and MG *vs.* PMG, where MG is always consistent under H0, and either DFE or PMG are efficient under the null. Consumption growth volatility is computed using a rolling window of 40 quarters. Equity market integration is captured by the (*i*) cross-country standard correlation (ρ, Panel A), (*ii*) adjusted R-squared (R^2, Panel B), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, Panel C). Crisis Dummy takes value 1 in the period 2007:Q3-2009:Q2, zero otherwise.
Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Sample period: 2000:Q1 - 2018:Q4.
Sample: 2000:Q1 - 2018:Q4

F Robustness Checks

F.1 Time-Series analysis

Subprime Crisis

Table F.1: Time-Series Regressions: Developed Countries (DEV)

Panel A: ρ	Canada	France	Germany	Italy	Japan	United Kingdom	United States
FI	0.129	0.065	-0.562	-0.074	-0.648**	0.020	0.078
	(0.339)	(0.469)	(1.103)	(0.370)	(0.324)	(0.210)	(0.202)
FO	0.593	-0.201	0.335	-0.070	8.519*	-0.644	0.351
	(0.745)	(0.225)	(1.025)	(0.150)	(4.386)	(1.534)	(0.947)
TO	0.195	-0.126	0.403	-0.148	-0.067	0.091	-0.316
	(0.523)	(0.404)	(0.391)	(0.382)	(0.462)	(0.222)	(0.726)
CPI	0.004	0.003	0.004	-0.001	0.010	0.005	-0.001
	(0.005)	(0.005)	(0.011)	(0.006)	(0.009)	(0.007)	(0.004)
CRISIS	0.034*	0.010	0.006	0.010	0.040**	0.026**	0.021**
	(0.019)	(0.007)	(0.011)	(0.010)	(0.015)	(0.011)	(0.010)
Constant	-0.011***	-0.006**	-0.012*	-0.003	0.001	-0.007*	-0.003
	(0.004)	(0.003)	(0.007)	(0.004)	(0.006)	(0.004)	(0.003)
Adj. R^2	0.057	-0.034	-0.038	-0.043	0.059	0.104	0.132
Obs.	75	75	75	75	75	75	75

Panel B: R^2	Canada	France	Germany	Italy	Japan	United Kingdom	United States
FI	-1.163	-0.092	-1.233	-1.350	-15.562	0.365	0.119
	(1.653)	(0.423)	(1.084)	(1.603)	(28.935)	(0.526)	(0.201)
FO	0.625	-0.200	0.366	-0.080	8.065	-0.536	0.356
	(0.743)	(0.227)	(1.072)	(0.142)	(5.306)	(1.464)	(1.066)
TO	0.007	-0.121	0.418	-0.261	0.018	0.106	-0.330
	(0.468)	(0.394)	(0.427)	(0.353)	(0.501)	(0.223)	(0.742)
CPI	0.004	0.003	0.002	-0.003	0.012	0.006	-0.001
	(0.005)	(0.005)	(0.011)	(0.007)	(0.010)	(0.007)	(0.004)
CRISIS	0.031*	0.010	0.010	0.010	0.027*	0.026**	0.021*
	(0.016)	(0.007)	(0.012)	(0.010)	(0.016)	(0.012)	(0.011)
Constant	-0.010***	-0.006**	-0.011	-0.000	-0.000	-0.008**	-0.003
	(0.004)	(0.003)	(0.007)	(0.004)	(0.006)	(0.004)	(0.003)
Adj. R^2	0.081	-0.033	-0.011	0.036	0.014	0.120	0.134
Obs.	75	75	75	75	75	75	75

Panel C: θ	Canada	France	Germany	Italy	Japan	United Kingdom	United States
FI	0.040	-0.264	-0.481	-0.053	0.026	-0.484	-0.051
	(0.323)	(0.311)	(0.757)	(0.143)	(0.088)	(0.402)	(0.192)
FO	0.588	-0.188	0.287	-0.069	7.765	-0.500	0.443
	(0.805)	(0.241)	(1.298)	(0.133)	(5.303)	(1.454)	(1.087)
TO	0.130	-0.148	0.350	-0.173	0.014	0.082	-0.372
	(0.555)	(0.414)	(0.355)	(0.371)	(0.508)	(0.208)	(0.732)
CPI	0.003	0.003	0.005	-0.001	0.013	0.006	-0.001
	(0.005)	(0.005)	(0.011)	(0.006)	(0.009)	(0.007)	(0.004)
CRISIS	0.034*	0.010	0.008	0.009	0.025	0.028**	0.021**
	(0.020)	(0.007)	(0.010)	(0.009)	(0.016)	(0.012)	(0.011)
Constant	-0.011***	-0.006**	-0.013*	-0.002	-0.001	-0.007**	-0.002
	(0.004)	(0.003)	(0.007)	(0.004)	(0.006)	(0.004)	(0.003)
Adj. R^2	0.054	-0.027	-0.042	-0.043	0.012	0.142	0.126
Obs.	75	75	75	75	75	75	75

Notes: This table reports results for time series regressions of consumption growth volatility on financial integration indexes for the developed coutries group. Consumption growth volatility is computed using a rolling window of 40 quarters. Equity market integration is captured by the (*i*) cross-country standard correlation (ρ, Panel A), (*ii*) adjusted R-squared (R^2, Panel B), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, Panel C). Crisis Dummy takes value 1 in the period 2007:Q3-2009:Q2, zero otherwise.
Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Sample period: 2000:Q1 - 2018:Q4. Bootstrap standard errors (1000 repetitions) are reported in parenthesis. Sample: 2000:Q1-2018:Q4. Significance at 1%, 5%, 10% are denoted respectively by ***, **, *.

Table F.2: Time-Series Regressions: Emerging Countries (EM)

Panel A: ρ	Brazil	Chile	Greece	Hungary	India	Israel	Korea	Mexico	Poland	South Africa	Turkey
FI	1.363	-0.154	-0.088	-0.138	-3.269	-0.703	-0.131	0.058	-0.215	-0.091	-0.082
	(1.084)	(0.309)	(0.444)	(0.380)	(2.615)	(0.646)	(0.916)	(0.419)	(0.845)	(0.362)	(0.490)
FO	0.071*	0.011	0.005	-0.001	-0.038	-0.012	0.010	0.008	-0.041	-0.031**	-0.060
	(0.041)	(0.008)	(0.024)	(0.001)	(0.208)	(0.008)	(0.074)	(0.031)	(0.052)	(0.016)	(0.113)
TO	-0.986	-0.136	-0.057	-0.109	-0.232	-0.109	0.151	-0.861	-0.058	-0.036	0.153
	(0.874)	(0.134)	(0.278)	(0.382)	(0.749)	(0.304)	(0.329)	(0.694)	(0.313)	(0.279)	(0.345)
CPI	0.022**	0.009	0.005	0.007	0.016	0.010	-0.042	0.013	0.002	0.000	0.002
	(0.010)	(0.009)	(0.005)	(0.006)	(0.015)	(0.009)	(0.032)	(0.009)	(0.009)	(0.011)	(0.004)
CRISIS	0.033*	-0.023	0.061	0.028*	-0.134*	0.044*	-0.028	0.061	0.016	0.022	0.032*
	(0.019)	(0.016)	(0.073)	(0.016)	(0.069)	(0.026)	(0.057)	(0.039)	(0.023)	(0.020)	(0.019)
Constant	-0.032**	-0.003	0.013**	-0.014	0.009	-0.016**	0.015	-0.020	-0.021	-0.002	-0.011
	(0.015)	(0.008)	(0.005)	(0.010)	(0.017)	(0.007)	(0.016)	(0.013)	(0.018)	(0.013)	(0.010)
Adj. R^2	0.123	0.082	0.015	0.014	0.146	0.096	0.056	0.110	-0.070	0.033	0.020
Obs.	47	51	72	51	46	51	72	72	51	72	39

Panel B: R^2	Brazil	Chile	Greece	Hungary	India	Israel	Korea	Mexico	Poland	South Africa	Turkey
FI	-0.210	-0.750	-0.020	-0.003	-7.472	0.124	-0.022	0.040	0.014	-0.031	0.179
	(0.291)	(0.927)	(0.765)	(0.207)	(8.465)	(2.065)	(1.558)	(0.484)	(0.312)	(0.400)	(0.652)
FO	0.063	0.012	0.005	-0.001	-0.028	-0.011	-0.006	0.017	-0.041	-0.034**	-0.061
	(0.041)	(0.009)	(0.027)	(0.001)	(0.235)	(0.009)	(0.062)	(0.039)	(0.050)	(0.016)	(0.103)
TO	-0.981	-0.091	-0.078	-0.119	0.221	-0.012	0.199	-0.775	-0.054	-0.027	0.146
	(0.924)	(0.126)	(0.299)	(0.361)	(0.680)	(0.367)	(0.330)	(0.618)	(0.326)	(0.279)	(0.348)
CPI	0.020*	0.008	0.005	0.007	0.015	0.007	-0.045	0.013	0.002	0.001	0.001
	(0.010)	(0.008)	(0.005)	(0.006)	(0.014)	(0.009)	(0.036)	(0.009)	(0.008)	(0.011)	(0.004)
CRISIS	0.030	-0.024	0.059	0.026*	-0.119	0.041	-0.029	0.061	0.015	0.022	0.033*
	(0.020)	(0.016)	(0.065)	(0.013)	(0.095)	(0.033)	(0.067)	(0.041)	(0.022)	(0.020)	(0.018)
Constant	-0.028*	-0.002	0.012**	-0.014	0.009	-0.015**	0.015	-0.019	-0.022	-0.003	-0.010
	(0.016)	(0.007)	(0.005)	(0.009)	(0.015)	(0.007)	(0.017)	(0.014)	(0.017)	(0.013)	(0.011)
Adj. R^2	0.088	0.105	0.014	0.012	0.104	0.074	0.051	0.108	-0.070	0.026	0.022
Obs.	47	51	72	51	46	51	72	72	51	72	39

Panel C: θ	Brazil	Chile	Greece	Hungary	India	Israel	Korea	Mexico	Poland	South Africa	Turkey
FI	-1.408	-0.339	-0.192	0.197	0.436	-0.839	0.614	-2.567*	-4.055	-0.546*	-0.231
	(1.826)	(0.454)	(0.432)	(0.317)	(2.538)	(1.014)	(0.580)	(1.525)	(4.386)	(0.312)	(0.462)
FO	0.061*	0.012	0.008	-0.001	0.047	-0.010	-0.011	0.001	-0.051	-0.029*	-0.062
	(0.037)	(0.009)	(0.026)	(0.001)	(0.225)	(0.008)	(0.060)	(0.035)	(0.054)	(0.015)	(0.110)
TO	-1.198	-0.198	-0.041	-0.135	0.144	-0.049	0.089	-0.951	-0.289	0.039	0.113
	(0.939)	(0.175)	(0.289)	(0.367)	(0.724)	(0.366)	(0.299)	(0.649)	(0.618)	(0.278)	(0.392)
CPI	0.018**	0.009	0.005	0.008	0.014	0.008	-0.039	0.010	-0.003	-0.000	0.002
	(0.009)	(0.010)	(0.005)	(0.006)	(0.014)	(0.009)	(0.028)	(0.007)	(0.010)	(0.010)	(0.004)
CRISIS	0.033	-0.020	0.066	0.024*	-0.139	0.052	-0.044	0.076*	0.035	0.026	0.036
	(0.027)	(0.017)	(0.078)	(0.013)	(0.108)	(0.034)	(0.069)	(0.045)	(0.044)	(0.019)	(0.026)
Constant	-0.025*	-0.002	0.012**	-0.014	0.010	-0.015*	0.011	-0.011	-0.014	-0.001	-0.010
	(0.015)	(0.009)	(0.005)	(0.010)	(0.015)	(0.008)	(0.013)	(0.009)	(0.011)	(0.012)	(0.009)
Adj. R^2	0.107	0.110	0.018	0.015	0.073	0.104	0.128	0.220	0.013	0.069	0.040
Obs.	47	51	72	51	46	51	72	72	51	72	39

Notes: This table reports results for time series regressions of consumption growth volatility on financial integration indexes for the emerging coutries group. Consumption growth volatility is computed using a rolling window of 40 quarters. Equity market integration is captured by the (*i*) cross-country standard correlation (ρ, Panel A), (*ii*) adjusted R-squared (R^2, Panel B), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, Panel C). Crisis Dummy takes value 1 in the period 2007:Q3-2009:Q2, zero otherwise.
Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Sample period: 2000:Q1 - 2018:Q4. Bootstrap standard errors (1000 repetitions) are reported in parenthesis. Sample: 2000:Q1-2018:Q4. Significance at 1%, 5%, 10% are denoted respectively by ***, **, *.

Income Volatility

Table F.3: Time-Series Regressions: Developed Countries (DEV)

Panel A: ρ	Canada	France	Germany	Italy	Japan	United Kingdom	United States
FI	0.003	-0.004	0.002	0.002	0.001	0.004	0.004
	(0.004)	(0.007)	(0.015)	(0.004)	-0.002	-0.005	-0.003
FO	0.002	0.001	0.014	-0.003	-0.028	-0.035	0.000
	(0.004)	(0.003)	(0.033)	(0.002)	-0.025	-0.025	-0.01
TO	-0.000	-0.012**	-0.015	-0.017***	-0.014**	-0.004	-0.018*
	(0.004)	(0.005)	(0.010)	(0.005)	-0.007	-0.004	-0.01
CPI	-0.000	-0.000	-0.000*	-0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	0.000	0.000	0.000
Constant	0.000	0.000	0.000	0.000*	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	0.000	0.000	0.000
Adj. R^2	0.032	0.221	0.135	0.350	0.082	0.039	0.37
Obs.	74	74	74	74	74	74	74

Panel B: R^2	Canada	France	Germany	Italy	Japan	United Kingdom	United States
FI	-0.026	-0.007*	0.029	-0.002	0.381	0.006	0.004
	(0.017)	(0.004)	(0.023)	(0.010)	-0.425	-0.008	-0.003
FO	0.002	0.002	0.017	-0.003	-0.034	-0.035	0.002
	(0.004)	(0.003)	(0.033)	(0.002)	-0.025	-0.027	-0.011
TO	-0.004	-0.013**	-0.015*	-0.017***	-0.014**	-0.004	-0.020**
	(0.005)	(0.005)	(0.009)	(0.005)	-0.007	-0.004	-0.01
CPI	-0.000	-0.000	-0.000*	-0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	0.000	0.000	0.000
Constant	0.000	0.000*	0.000	0.000*	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	0.000	0.000	0.000
Adj. R^2	0.135	0.235	0.245	0.347	0.093	0.035	0.315
Obs.	74	74	74	74	74	74	74

Panel C: θ	Canada	France	Germany	Italy	Japan	United Kingdom	United States
FI	-0.000	0.002	-0.006	-0.003	0.001	-0.002	0.000
	(0.002)	(0.004)	(0.005)	(0.002)	(0.001)	(0.009)	(0.003)
FO	0.002	0.001	0.012	-0.003	-0.025	-0.037	0.002
	(0.004)	(0.003)	(0.031)	(0.002)	(0.025)	(0.029)	(0.012)
TO	-0.002	-0.012**	-0.015	-0.018***	-0.015*	-0.005	-0.021*
	(0.004)	(0.006)	(0.010)	(0.005)	(0.007)	(0.004)	(0.011)
CPI	-0.000*	-0.000	-0.000*	-0.000	-0.000	0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Constant	0.000	0.000	0.000	0.000*	0.000	-0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Adj. R^2	0.014	0.219	0.144	0.356	0.093	0.019	0.277
Obs.	74	74	74	74	74	74	74

Notes: This table reports results for time series regressions of income growth volatility on financial integration indexes for the developed coutries group. Income growth volatility is computed using a rolling window of 40 quarters. Equity market integration is captured by the (*i*) cross-country standard correlation (ρ, Panel A), (*ii*) adjusted R-squared (R^2, Panel B), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, Panel C). Crisis Dummy takes value 1 in the period 2007:Q3-2009:Q2, zero otherwise.
Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Sample period: 2000:Q1 - 2018:Q4. Bootstrap standard errors (1000 repetitions) are reported in parenthesis. Sample: 2000:Q1-2018:Q4. Significance at 1%, 5%, 10% are denoted respectively by ***, **, *.

Table F.4: Time-Series Regressions: Emerging Countries (EM)

Panel A: ρ	Brazil	Chile	Greece	Hungary	India	Israel	Korea	Mexico	Poland	South Africa	Turkey
FI	-0.007	-0.001	0.011	0.013	0.012*	0.004	-0.000	0.001	0.004	-0.002	0.001
	(0.010)	(0.002)	(0.033)	(0.011)	(0.007)	(0.003)	(0.009)	(0.017)	(0.006)	(0.003)	(0.009)
FO	0.000	0.000	-0.002	-0.000	-0.000	-0.000	-0.006	-0.004	0.000	-0.001	-0.010
	(0.000)	(0.000)	(0.003)	(0.000)	(0.001)	(0.000)	(0.005)	(0.004)	(0.000)	(0.001)	(0.008)
TO	-0.018	0.000	-0.013	-0.010	-0.001	-0.001	0.008	-0.014	-0.001	-0.012	0.009
	(0.015)	(0.002)	(0.014)	(0.010)	(0.003)	(0.002)	(0.010)	(0.012)	(0.003)	(0.008)	(0.022)
CPI	0.000	0.000	0.000	0.000*	0.000	-0.000**	-0.001	0.000	-0.000	-0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)
Constant	0.000	-0.000	0.000	-0.000	-0.000	-0.000***	0.001	-0.000	-0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.001)
Adj. R^2	0.046	0.065	-0.002	0.166	0.037	0.095	0.049	0.057	-0.034	0.113	-0.046
Obs.	47	51	72	51	46	51	72	72	51	72	72

Panel B: R^2	Brazil	Chile	Greece	Hungary	India	Israel	Korea	Mexico	Poland	South Africa	Turkey
FI	-0.000	-0.018	0.026	0.003	0.026	-0.004	0.019	0.024**	0.007*	0.009	0.031*
	(0.006)	(0.013)	(0.023)	(0.004)	(0.025)	(0.006)	(0.016)	(0.012)	(0.004)	(0.006)	(0.016)
FO	0.000	0.000	0.001	-0.000*	-0.000	-0.000	-0.000	-0.000	0.000	-0.000*	-0.003
	(0.000)	(0.000)	(0.001)	(0.000)	(0.001)	(0.000)	(0.001)	(0.001)	(0.000)	(0.000)	(0.002)
TO	-0.018	0.001	-0.000	-0.009	-0.002	-0.002	0.002	-0.005	-0.000	-0.003	-0.010
	(0.015)	(0.002)	(0.003)	(0.007)	(0.003)	(0.002)	(0.006)	(0.011)	(0.003)	(0.003)	(0.006)
CPI	0.000	0.000	0.000	0.000	0.000	-0.000*	-0.001	0.000	-0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)
Constant	0.000	-0.000	-0.000	-0.000	-0.000	-0.000**	0.000	-0.000	-0.000*	-0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Adj. R^2	0.034	0.175	0.843	0.100	-0.016	0.084	0.867	0.822	0.142	0.917	0.910
Obs.	47	51	72	51	46	51	72	72	51	72	72

Panel C: θ	Brazil	Chile	Greece	Hungary	India	Israel	Korea	Mexico	Poland	South Africa	Turkey
FI	0.012	-0.002	0.016	0.013	0.007	0.002	0.010	0.045	0.001	0.012	0.024
	(0.013)	(0.004)	(0.019)	(0.011)	(0.008)	(0.003)	(0.012)	(0.055)	(0.008)	(0.011)	(0.022)
FO	0.000	0.000	-0.002	-0.000	-0.000	-0.000	-0.006	-0.004	0.000	-0.001	-0.011
	(0.000)	(0.000)	(0.003)	(0.000)	(0.001)	(0.000)	(0.006)	(0.003)	(0.000)	(0.001)	(0.009)
TO	-0.015	-0.000	-0.014	-0.010	-0.001	-0.002	0.008	-0.008	-0.001	-0.012	0.012
	(0.016)	(0.002)	(0.014)	(0.010)	(0.003)	(0.002)	(0.009)	(0.012)	(0.003)	(0.008)	(0.025)
CPI	0.000	0.000	0.000	0.000*	0.000	-0.000*	-0.001	0.000	-0.000	0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)
Constant	0.000	-0.000	0.000	-0.000	-0.000	-0.000***	0.001	-0.000	-0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.001)
Adj. R^2	0.060	0.073	0.006	0.136	-0.008	0.079	0.069	0.092	-0.043	0.152	-0.032
Obs.	47	51	72	51	46	51	72	72	51	72	72

Notes: This table reports results for time series regressions of income growth volatility on financial integration indexes for the developed coutries group. Income growth volatility is computed using a rolling window of 40 quarters. Equity market integration is captured by the (*i*) cross-country standard correlation (ρ, Panel A), (*ii*) adjusted R-squared (R^2, Panel B), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, Panel C). Crisis Dummy takes value 1 in the period 2007:Q3-2009:Q2, zero otherwise.

Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Sample period: 2000:Q1 - 2018:Q4. Bootstrap standard errors (1000 repetitions) are reported in parenthesis. Sample: 2000:Q1-2018:Q4. Significance at 1%, 5%, 10% are denoted respectively by ***, **, *.

Real Exchange Rate Volatility

Table F.5: Time-Series Regressions: Developed Countries (DEV)

Panel A: ρ	Canada	France	Germany	Italy	Japan	United Kingdom	United States
FI	-3.294	6.772	3.021	2.116	3.404	2.154	1.034
	(3.612)	(4.391)	(4.442)	(3.747)	(2.136)	(4.257)	(1.941)
FO	3.251	-6.735***	2.980	3.836	-133.808***	-61.879	-38.526
	(10.096)	(2.434)	(8.680)	(2.427)	(34.730)	(56.996)	(24.792)
TO	-1.735	0.196	-1.860	-2.048	-8.488	-2.541	-5.095
	(4.371)	(2.314)	(2.722)	(3.834)	(6.958)	(7.550)	(8.208)
CPI	0.013	-0.056	0.001	-0.171**	0.238***	-0.033	0.044
	(0.097)	(0.043)	(0.057)	(0.069)	(0.083)	(0.180)	(0.043)
Constant	-0.033	0.011	-0.008	-0.021	-0.015	-0.050	-0.008
	(0.066)	(0.020)	(0.036)	(0.034)	(0.043)	(0.109)	(0.032)
Adj. R2	-0.042	0.131	-0.033	0.026	0.218	-0.014	0.171
Obs.	75	75	75	75	75	75	75

Panel B: R^2	Canada	France	Germany	Italy	Japan	United Kingdom	United States
FI	-9.635	4.632*	-0.845	-7.170	117.735	10.285	0.698
	(8.492)	(2.623)	(4.406)	(6.988)	(289.397)	(9.279)	(2.088)
FO	4.295	-6.935***	2.821	3.743	-137.222***	-58.329	-38.019
	(9.941)	(2.492)	(8.791)	(2.368)	(36.589)	(57.840)	(23.566)
TO	-0.727	0.019	-1.654	-2.751	-10.045	-2.262	-5.625
	(4.265)	(2.299)	(2.571)	(4.012)	(6.279)	(7.343)	(8.178)
CPI	0.025	-0.052	-0.005	-0.178**	0.231***	0.000	0.041
	(0.101)	(0.041)	(0.055)	(0.070)	(0.084)	(0.175)	(0.046)
Constant	-0.039	0.009	-0.000	-0.006	-0.002	-0.078	-0.004
	(0.066)	(0.020)	(0.034)	(0.036)	(0.045)	(0.105)	(0.034)
Adj. R2	-0.043	0.127	-0.046	0.038	0.199	0.006	0.168
Obs.	75	75	75	75	75	75	75

Panel C: θ	Canada	France	Germany	Italy	Japan	United Kingdom	United States
FI	0.230	4.058	-0.672	-6.630	-0.172	-0.020	4.222
	(3.673)	(3.519)	(4.804)	(5.849)	(1.023)	(5.542)	(3.726)
FO	3.546	-7.038***	2.731	4.149*	-135.743***	-62.222	-39.807
	(9.919)	(2.675)	(8.849)	(2.365)	(37.511)	(59.927)	(24.307)
TO	0.067	0.532	-1.709	-4.375	-10.202	-2.828	-4.416
	(3.977)	(2.186)	(2.648)	(3.796)	(6.317)	(7.537)	(7.945)
CPI	0.020	-0.053	-0.003	-0.158**	0.228***	-0.034	0.037
	(0.098)	(0.039)	(0.058)	(0.065)	(0.084)	(0.175)	(0.043)
Constant	-0.045	0.014	-0.002	-0.010	0.001	-0.044	-0.008
	(0.061)	(0.020)	(0.032)	(0.034)	(0.043)	(0.103)	(0.032)
Adj. R2	-0.053	0.130	-0.046	0.074	0.198	-0.018	0.201
Obs.	75	75	75	75	75	75	75

Notes: This table reports results for time series regressions of consumption growth volatility on financial integration indexes for the developed coutries group. Consumption growth volatility is computed using a rolling window of 32 quarters. Equity market integration is captured by the (*i*) cross-country standard correlation (ρ, Panel A), (*ii*) adjusted R-squared (R^2, Panel B), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, Panel C).
Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Sample period: 2000:Q1 - 2018:Q4. Bootstrap standard errors (1000 repetitions) are reported in parenthesis. Sample: 2000:Q1-2018:Q4. Significance at 1%, 5%, 10% are denoted respectively by ***, **, *.

Table F.6: Time-Series Regressions: Emerging Countries (EM)

Panel A: ρ	Brazil	Chile	Greece	Hungary	India	Israel	Korea	Mexico	Poland	South Africa	Turkey
FI	-0.791	0.697	2.960**	0.886		0.744		0.110	0.119	-0.034	
	(2.348)	(0.916)	(1.420)	(1.653)		(1.288)		(2.580)	(2.138)	(1.628)	
FO	0.432*	-0.090**	-0.028	0.000		0.134***		-0.453**	-0.177**	0.074	
	(0.231)	(0.041)	(0.146)	(0.004)		(0.050)		(0.184)	(0.080)	(0.190)	
TO	5.855	1.866**	0.591	1.536		0.163		2.344	0.142	-3.292	
	(8.620)	(0.862)	(1.393)	(2.671)		(1.385)		(3.418)	(2.168)	(2.157)	
CPI	0.101	-0.071**	-0.003	-0.087*		-0.065*		0.101	-0.025	0.167**	
	(0.135)	(0.036)	(0.029)	(0.048)		(0.037)		(0.068)	(0.044)	(0.068)	
Constant	-0.144	-0.036	-0.006	0.071		0.008		-0.153*	-0.063	-0.162**	
	(0.142)	(0.037)	(0.036)	(0.048)		(0.033)		(0.088)	(0.042)	(0.069)	
Adj. R2	0.019	0.096	0.058	0.069		0.110		0.022	-0.024	0.062	
Obs.	72	72	69	69		72		72	69	72	

Panel B: R^2	Brazil	Chile	Greece	Hungary	India	Israel	Korea	Mexico	Poland	South Africa	Turkey
FI	-0.260	-0.235	0.274	-0.512		0.122		-0.217	-1.590**	0.504	
	(0.662)	(1.962)	(8.632)	(1.333)		(3.349)		(2.124)	(0.768)	(7.209)	
FO	0.437**	-0.091**	-0.076	0.000		0.137***		-0.488**	-0.162**	0.117	
	(0.216)	(0.044)	(0.140)	(0.004)		(0.052)		(0.208)	(0.080)	(0.213)	
TO	6.005	1.883**	1.108	0.494		0.212		2.401	-1.743	-2.803	
	(8.660)	(0.853)	(1.373)	(2.904)		(1.384)		(3.155)	(2.095)	(2.220)	
CPI	0.100	-0.072*	0.002	-0.061		-0.067*		0.101	-0.004	0.168**	
	(0.141)	(0.038)	(0.028)	(0.054)		(0.038)		(0.065)	(0.039)	(0.069)	
Constant	-0.139	-0.026	0.016	0.078		0.015		-0.150*	-0.055	-0.171**	
	(0.146)	(0.036)	(0.035)	(0.051)		(0.032)		(0.084)	(0.044)	(0.075)	
Adj. R2	0.020	0.071	-0.052	-0.036		0.095		0.024	0.054	0.076	
Obs.	72	72	69	69		72		72	69	72	

Panel C: θ	Brazil	Chile	Greece	Hungary	India	Israel	Korea	Mexico	Poland	South Africa	Turkey
FI	2.120	-1.124	-0.371	2.344		0.279		-0.394	5.996	1.541	
	(2.662)	(1.340)	(1.800)	(3.335)		(1.898)		(5.887)	(4.592)	(3.329)	
FO	0.485**	-0.079*	-0.075	0.000		0.136***		-0.450**	-0.160*	0.068	
	(0.222)	(0.044)	(0.147)	(0.004)		(0.048)		(0.189)	(0.083)	(0.192)	
TO	6.891	1.597*	1.170	1.443		0.197		2.429	0.480	-3.319	
	(8.654)	(0.838)	(1.565)	(2.680)		(1.469)		(3.204)	(2.035)	(2.143)	
CPI	0.083	-0.069*	0.003	-0.079		-0.069*		0.100	-0.021	0.170**	
	(0.144)	(0.038)	(0.029)	(0.050)		(0.039)		(0.067)	(0.043)	(0.070)	
Constant	-0.135	-0.029	0.017	0.072		0.016		-0.150*	-0.071*	-0.169**	
	(0.145)	(0.037)	(0.039)	(0.052)		(0.033)		(0.085)	(0.039)	(0.070)	
Adj. R2	0.050	0.069	-0.051	-0.011		0.093		0.022	0.023	0.067	
Obs.	72	72	69	69		72		72	69	72	

Notes: This table reports results for time series regressions of consumption growth volatility on financial integration indexes for the emerging coutries group. Consumption growth volatility is computed using a rolling window of 32 quarters. Equity market integration is captured by the (*i*) cross-country standard correlation (ρ, Panel A), (*ii*) adjusted R-squared (R^2, Panel B), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, Panel C).

Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Sample period: 2000:Q1 - 2018:Q4. Bootstrap standard errors (1000 repetitions) are reported in parenthesis. Sample: 2000:Q1-2018:Q4. Significance at 1%, 5%, 10% are denoted respectively by ***, **, *.

Different Rolling Window

Table F.7: Time-Series Regressions: Developed Countries (DEV)

Panel A: ρ	Canada	France	Germany	Italy	Japan	United Kingdom	United States
FI	0.458**	0.153	0.643	0.373	-0.328	0.124	0.239*
	(0.228)	(0.580)	(0.993)	(0.344)	(0.318)	(0.175)	(0.144)
FO	-0.958**	0.309	-1.592	0.356	0.388	-1.141	0.975
	(0.372)	(0.625)	(1.725)	(0.241)	(2.786)	(2.551)	(0.846)
TO	-0.295	-0.084	0.300	-0.313	-0.277	-0.328	-1.525*
	(0.353)	(0.415)	(0.413)	(0.537)	(0.611)	(0.325)	(0.832)
CPI	0.009*	0.002	0.001	0.000	0.010	-0.003	-0.002
	(0.005)	(0.006)	(0.013)	(0.008)	(0.010)	(0.011)	(0.005)
Constant	-0.009**	-0.005*	-0.010	-0.002	0.006	0.000	0.001
	(0.004)	(0.003)	(0.007)	(0.005)	(0.006)	(0.006)	(0.004)
Adj. R^2	0.178	-0.044	-0.029	-0.009	-0.020	-0.014	0.189
Obs.	74	75	74	74	75	75	75

Panel B: R^2	Canada	France	Germany	Italy	Japan	United Kingdom	United States
FI	0.508	-0.228	-0.014	-1.307	-0.932	0.292	0.425*
	(0.701)	(0.547)	(0.942)	(1.763)	(22.526)	(0.698)	(0.224)
FO	-0.779**	0.274	-1.323	0.369	-0.568	-1.114	1.071
	(0.360)	(0.560)	(1.714)	(0.241)	(3.251)	(2.490)	(0.828)
TO	-0.533	-0.106	0.204	-0.732	-0.118	-0.331	-1.594**
	(0.505)	(0.399)	(0.391)	(0.447)	(0.527)	(0.304)	(0.733)
CPI	0.009	0.003	0.003	-0.001	0.012	-0.002	-0.001
	(0.005)	(0.006)	(0.013)	(0.010)	(0.012)	(0.010)	(0.004)
Constant	-0.008**	-0.005*	-0.009	0.002	0.005	-0.001	0.000
	(0.004)	(0.003)	(0.007)	(0.006)	(0.007)	(0.005)	(0.003)
Adj. R^2	0.105	-0.041	-0.045	0.063	-0.044	-0.009	0.210
Obs.	74	75	74	74	75	75	75

Panel C: θ	Canada	France	Germany	Italy	Japan	United Kingdom	United States
FI	0.248	-0.502	-0.476	-1.052	-0.044	0.119	0.289
	(0.240)	(0.436)	(0.463)	(0.682)	(0.059)	(0.377)	(0.295)
FO	-0.852**	0.279	-1.293	0.407*	-0.409	-1.140	1.045
	(0.343)	(0.584)	(1.818)	(0.230)	(3.324)	(2.383)	(0.916)
TO	-0.510	-0.156	0.168	-0.497	-0.122	-0.350	-1.677**
	(0.471)	(0.385)	(0.523)	(0.412)	(0.554)	(0.321)	(0.833)
CPI	0.009*	0.004	0.005	0.005	0.012	-0.004	-0.001
	(0.005)	(0.006)	(0.013)	(0.007)	(0.013)	(0.010)	(0.004)
Constant	-0.009**	-0.005*	-0.009	-0.001	0.005	0.000	0.001
	(0.004)	(0.003)	(0.007)	(0.004)	(0.006)	(0.005)	(0.003)
Adj. R^2	0.105	-0.021	-0.029	0.070	-0.043	-0.023	0.147
Obs.	74	75	74	74	75	75	75

Notes: This table reports results for time series regressions of consumption growth volatility on financial integration indexes for the developed coutries group. Consumption growth volatility is computed using a rolling window of 32 quarters. Equity market integration is captured by the (*i*) cross-country standard correlation (ρ, Panel A), (*ii*) adjusted R-squared (R^2, Panel B), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, Panel C). Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Sample period: 2000:Q1 - 2018:Q4. Bootstrap standard errors (1000 repetitions) are reported in parenthesis. Sample: 2000:Q1-2018:Q4. Significance at 1%, 5%, 10% are denoted respectively by ***, **, *.

Table F.8: Time-Series Regressions: Emerging Countries (EM)

Panel A: ρ	Brazil	Chile	Greece	Hungary	India	Israel	Korea	Mexico	Poland	South Africa	Turkey
FI	0.599*	0.727***	-0.003	-0.068	1.206**	0.594	0.285	0.135	0.014	0.148	0.116
	(0.323)	(0.282)	(0.159)	(0.304)	(0.533)	(1.224)	(0.472)	(0.652)	(0.474)	(0.694)	(0.703)
FO	0.004	0.016	-0.032	0.002	0.013	0.049	-0.584	-0.080	0.158	0.016	0.151
	(0.034)	(0.014)	(0.022)	(0.001)	(0.055)	(0.050)	(0.459)	(0.096)	(0.103)	(0.035)	(0.235)
TO	-1.647	-0.626*	-0.012	-0.361	0.094	-0.555	-0.333	-0.309	-0.756	-1.381	-3.300
	(1.210)	(0.370)	(0.201)	(0.581)	(0.393)	(1.085)	(0.582)	(0.522)	(0.507)	(0.908)	(2.942)
CPI	0.018	0.001	0.001	0.024	-0.010	-0.007	-0.014	-0.006	-0.002	0.013	0.013
	(0.012)	(0.009)	(0.003)	(0.019)	(0.010)	(0.030)	(0.032)	(0.015)	(0.014)	(0.021)	(0.011)
Constant	-0.024	-0.005	-0.007	0.001	0.009	-0.011	-0.050***	-0.001	-0.029	-0.034	-0.040
	(0.016)	(0.010)	(0.005)	(0.012)	(0.012)	(0.042)	(0.019)	(0.021)	(0.024)	(0.030)	(0.027)
Adj. R^2	0.071	0.214	-0.045	0.021	0.041	-0.055	0.005	-0.040	0.001	0.010	0.096
Obs.	55	59	63	72	59	54	72	59	72	72	59

Panel B: R^2	Brazil	Chile	Greece	Hungary	India	Israel	Korea	Mexico	Poland	South Africa	Turkey
FI	0.319**	1.000	-2.000	0.076	0.272	-4.366	-4.250	0.108	-0.037	1.599*	-0.969
	(0.142)	(0.955)	(1.605)	(0.203)	(1.302)	(4.149)	(3.177)	(0.531)	(0.579)	(0.907)	(1.181)
FO	-0.000	0.016	-0.031	0.002	-0.002	0.040	-0.546	-0.080	0.159	0.020	0.095
	(0.033)	(0.014)	(0.020)	(0.001)	(0.057)	(0.041)	(0.449)	(0.099)	(0.116)	(0.033)	(0.220)
TO	-1.791	-0.769**	-0.063	-0.317	-0.101	-1.453	-0.516	-0.303	-0.769	-1.042	-3.492
	(1.169)	(0.361)	(0.191)	(0.582)	(0.406)	(1.398)	(0.638)	(0.531)	(0.526)	(0.944)	(3.094)
CPI	0.017	-0.005	-0.000	0.023	-0.009	-0.009	-0.011	-0.006	-0.002	0.018	0.009
	(0.012)	(0.009)	(0.003)	(0.019)	(0.010)	(0.029)	(0.031)	(0.014)	(0.014)	(0.019)	(0.009)
Constant	-0.023	-0.001	-0.007	0.001	0.006	-0.021	-0.053***	-0.001	-0.029	-0.038	-0.036
	(0.015)	(0.010)	(0.005)	(0.012)	(0.013)	(0.041)	(0.019)	(0.019)	(0.023)	(0.028)	(0.024)
Adj. R^2	0.075	0.133	-0.021	0.017	-0.051	-0.029	0.015	-0.040	0.001	0.051	0.103
Obs.	55	59	63	72	59	54	72	59	72	72	59

Panel C: θ	Brazil	Chile	Greece	Hungary	India	Israel	Korea	Mexico	Poland	South Africa	Turkey
FI	-0.389	0.143	-0.218	0.353	0.328	-0.583	1.621	0.284	0.821	0.662	0.274
	(0.903)	(0.237)	(0.150)	(0.342)	(0.464)	(1.095)	(1.278)	(0.621)	(0.798)	(1.002)	(0.651)
FO	0.002	0.015	-0.034	0.002	-0.000	0.051	-0.551	-0.086	0.147	0.022	0.158
	(0.035)	(0.013)	(0.022)	(0.001)	(0.062)	(0.054)	(0.377)	(0.083)	(0.109)	(0.033)	(0.232)
TO	-2.148*	-0.785**	0.017	-0.334	-0.048	-0.902	-0.355	-0.284	-0.655	-1.330	-3.270
	(1.252)	(0.348)	(0.183)	(0.596)	(0.409)	(1.266)	(0.653)	(0.463)	(0.558)	(0.992)	(2.877)
CPI	0.017	-0.007	0.001	0.024	-0.010	-0.005	-0.009	-0.005	-0.001	0.017	0.014
	(0.012)	(0.010)	(0.003)	(0.020)	(0.011)	(0.032)	(0.034)	(0.012)	(0.014)	(0.023)	(0.012)
Constant	-0.024	0.001	-0.007	0.001	0.007	-0.016	-0.055**	-0.001	-0.030	-0.038	-0.041
	(0.016)	(0.011)	(0.005)	(0.013)	(0.013)	(0.039)	(0.023)	(0.018)	(0.026)	(0.032)	(0.028)
Adj. R^2	0.046	0.105	-0.016	0.024	-0.036	-0.057	0.107	-0.038	0.004	0.023	0.099
Obs.	55	59	63	72	59	54	72	59	72	72	59

Notes: This table reports results for time series regressions of consumption growth volatility on financial integration indexes for the emerging coutries group. Consumption growth volatility is computed using a rolling window of 32 quarters. Equity market integration is captured by the (*i*) cross-country standard correlation (ρ, Panel A), (*ii*) adjusted R-squared (R^2, Panel B), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, Panel C).

Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Sample period: 2000:Q1 - 2018:Q4. Bootstrap standard errors (1000 repetitions) are reported in parenthesis. Sample: 2000:Q1-2018:Q4. Significance at 1%, 5%, 10% are denoted respectively by ***, **, *.

GARCH

Table F.9: Time-Series Regressions: Developed Countries (DEV)

Panel A: ρ	Canada	France	Germany	Italy	Japan	UnitedKingdom	United States
FI	-1.621	-1.123	5.212	1.189	2.425	0.026	-1.022
	(1.456)	(1.930)	(6.696)	(1.675)	(7.089)	(3.438)	(1.334)
FO	-0.599	0.431	0.694	-0.466	77.458	-19.570	6.023
	(3.474)	(1.218)	(10.614)	(0.734)	(74.836)	(20.151)	(8.196)
TO	0.843	0.596	0.211	-0.439	26.885	-1.395	5.684
	(2.123)	(0.954)	(2.161)	(1.394)	(17.786)	(3.256)	(4.863)
CPI	-0.059	-0.022	-0.015	-0.032	-0.387	-0.240***	-0.062**
	(0.042)	(0.019)	(0.055)	(0.037)	(0.597)	(0.090)	(0.025)
Constant	0.023	0.003	-0.010	0.011	-0.047	0.092	0.023
	(0.020)	(0.010)	(0.037)	(0.017)	(0.229)	(0.058)	(0.021)
Adj. R^2	0.013	-0.019	-0.032	-0.031	-0.031	0.019	0.075
Obs.	74	75	74	74	75	75	75

Panel B: R^2	Canada	France	Germany	Italy	Japan	UnitedKingdom	United States
FI	0.906	-2.222*	5.939	-0.439	50.767	-1.315	-1.156
	(4.769)	(1.186)	(7.945)	(2.650)	(1007.836)	(8.375)	(1.955)
FO	-0.544	0.504	1.028	-0.483	75.580	-20.072	5.759
	(3.631)	(1.172)	(10.691)	(0.694)	(76.122)	(20.542)	(8.001)
TO	1.799	0.658	0.474	-0.494	25.738	-1.471	6.093
	(1.887)	(0.899)	(2.178)	(1.533)	(17.091)	(3.121)	(4.862)
CPI	-0.056	-0.021	-0.005	-0.031	-0.393	-0.245***	-0.060**
	(0.043)	(0.018)	(0.052)	(0.036)	(0.623)	(0.093)	(0.024)
Constant	0.017	0.005	-0.014	0.013	-0.037	0.097	0.021
	(0.020)	(0.011)	(0.040)	(0.017)	(0.224)	(0.060)	(0.019)
Adj. R^2	-0.005	0.017	-0.037	-0.040	-0.031	0.020	0.069
Obs.	74	75	74	74	75	75	75

Panel C: θ	Canada	France	Germany	Italy	Japan	UnitedKingdom	United States
FI	0.175	2.084*	3.013	0.662	0.492	5.134	-1.535
	(1.476)	(1.145)	(4.399)	(1.070)	(2.818)	(4.913)	(1.809)
FO	-0.459	0.327	1.261	-0.512	77.847	-20.544	5.950
	(3.622)	(1.156)	(10.029)	(0.747)	(69.195)	(20.673)	(8.179)
TO	1.740	0.817	0.747	-0.230	25.750	-1.261	5.875
	(1.852)	(0.914)	(2.076)	(1.566)	(18.024)	(3.341)	(4.762)
CPI	-0.056	-0.026	-0.020	-0.032	-0.405	-0.256***	-0.056**
	(0.042)	(0.019)	(0.057)	(0.035)	(0.579)	(0.096)	(0.026)
Constant	0.017	0.000	-0.002	0.011	-0.037	0.095	0.019
	(0.021)	(0.009)	(0.036)	(0.017)	(0.206)	(0.059)	(0.019)
Adj. R^2	-0.006	0.028	-0.048	-0.036	-0.031	0.035	0.074
Obs.	74	75	74	74	75	75	75

Notes: This table reports results for time series regressions of consumption growth volatility on financial integration indexes for the developed coutries group. Consumption growth volatility is computed as a GARCH(4,4) model. Equity market integration is captured by the (*i*) cross-country standard correlation (ρ, Panel A), (*ii*) adjusted R-squared (R^2, Panel B), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, Panel C). Crisis Dummy takes value one in the period 2007:Q3-2009:Q2, zero otherwise.
Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Sample period: 2000:Q1 - 2018:Q4. Bootstrap standard errors (1000 repetitions) are reported in parenthesis. Sample: 2000:Q1-2018:Q4. Significance at 1%, 5%, 10% are denoted respectively by ***, **, *.

Table F.10: Time-Series Regressions: Emerging Countries (EM)

Panel A: ρ	Brazil	Chile	Greece	Hungary	India	Israel	Korea	Mexico	Poland	South Africa	Turkey
FI	1.666	-5.184	-16.594	-0.736	1.212	0.806	0.820	1.311	-0.741	0.660	1.698
	(4.237)	(8.928)	(13.192)	(6.500)	(16.919)	(6.315)	(21.378)	(10.781)	(9.675)	(4.072)	(31.019)
FO	0.068	0.565	-1.272	-0.008	3.568	0.029	15.811	0.197	-0.347	0.153	-5.921
	(0.697)	(0.852)	(1.754)	(0.030)	(3.815)	(0.317)	(15.489)	(1.002)	(0.392)	(0.222)	(17.123)
TO	-56.451*	-26.209**	4.982	-4.818	-12.869	-5.139	-7.753	-7.702	5.867	0.502	42.154
	(32.768)	(12.175)	(12.812)	(17.181)	(21.863)	(12.629)	(31.851)	(16.618)	(7.465)	(3.916)	(53.688)
CPI	-0.044	-0.245	0.729***	0.117	0.615	0.648***	1.295	-0.303	-0.049	-0.132	0.074
	(0.219)	(0.385)	(0.257)	(0.323)	(0.647)	(0.249)	(2.618)	(0.311)	(0.207)	(0.083)	(0.544)
Constant	0.105	0.229	-0.195	-0.072	-0.562	-0.249	-1.613	0.260	0.002	0.120	-0.139
	(0.332)	(0.444)	(0.364)	(0.482)	(0.584)	(0.194)	(1.793)	(0.260)	(0.157)	(0.118)	(1.157)
Adj. R^2	0.028	0.040	0.088	-0.056	-0.031	0.040	-0.021	-0.027	-0.035	-0.016	-0.049
Obs.	72.000	72.000	72.000	72.000	72.000	72.000	72.000	72.000	72.000	72.000	72.000

Panel B: R^2	Brazil	Chile	Greece	Hungary	India	Israel	Korea	Mexico	Poland	South Africa	Turkey
FI	-0.276	-0.738	-4.011	-4.528	0.258	1.320	-42.770	1.777	4.200	0.824	-2.474
	(1.120)	(15.322)	(28.349)	(7.077)	(11.537)	(20.167)	(369.151)	(7.861)	(5.263)	(4.131)	(109.196)
FO	-0.018	0.495	-1.350	-0.008	3.496	0.049	3.269	0.562	-0.357	0.230	-6.253
	(0.628)	(0.841)	(1.733)	(0.030)	(3.839)	(0.294)	(9.212)	(1.074)	(0.379)	(0.231)	(16.812)
TO	-56.460*	-24.773**	0.807	-6.892	-12.648	-4.758	5.503	-5.610	12.193	0.995	42.740
	(31.164)	(12.060)	(13.257)	(23.140)	(20.666)	(12.628)	(25.886)	(14.718)	(11.900)	(4.007)	(53.787)
CPI	-0.070	-0.239	0.738***	0.138	0.600	0.640**	-0.620	-0.311	0.026	-0.137*	0.066
	(0.222)	(0.361)	(0.255)	(0.318)	(0.613)	(0.259)	(1.658)	(0.320)	(0.235)	(0.077)	(0.568)
Constant	0.132	0.179	-0.282	-0.060	-0.534	-0.254	0.155	0.262	-0.116	0.119	-0.075
	(0.329)	(0.405)	(0.344)	(0.472)	(0.563)	(0.193)	(0.687)	(0.270)	(0.179)	(0.111)	(1.218)
Adj. R^2	0.026	0.025	0.071	-0.058	-0.032	0.046	0.523	-0.021	-0.008	-0.001	-0.047
Obs.	72.000	72.000	72.000	67.000	72.000	72.000	72.000	72.000	65.000	72.000	72.000

Panel C: θ	Brazil	Chile	Greece	Hungary	India	Israel	Korea	Mexico	Poland	South Africa	Turkey
FI	3.965	-17.151	2.259	58.694	-16.574	-4.974	-28.854	12.640	1.482	0.135	-2.414
	(5.518)	(16.937)	(13.515)	(50.103)	(20.573)	(13.376)	(37.013)	(13.175)	(27.802)	(3.851)	(53.545)
FO	0.052	0.588	-0.973	0.003	3.414	0.028	16.558	0.281	-0.356	0.158	-5.634
	(0.614)	(0.838)	(1.717)	(0.025)	(3.677)	(0.297)	(15.613)	(0.963)	(0.380)	(0.231)	(16.422)
TO	-54.725*	-27.352**	2.152	-7.081	-14.982	-5.463	-5.977	-4.817	5.633	0.217	40.933
	(30.773)	(12.481)	(13.230)	(19.554)	(22.249)	(12.219)	(30.950)	(16.050)	(7.377)	(3.795)	(57.024)
CPI	-0.110	-0.186	0.694***	0.149	0.597	0.695**	1.211	-0.296	-0.050	-0.139*	0.075
	(0.219)	(0.387)	(0.252)	(0.334)	(0.651)	(0.302)	(2.471)	(0.320)	(0.206)	(0.078)	(0.566)
Constant	0.149	0.169	-0.329	-0.224	-0.478	-0.235	-1.456	0.228	-0.007	0.132	-0.113
	(0.329)	(0.429)	(0.347)	(0.514)	(0.566)	(0.194)	(1.706)	(0.281)	(0.162)	(0.115)	(1.196)
Adj. R^2	0.044	0.043	0.051	0.031	-0.029	0.043	-0.002	-0.025	-0.038	-0.019	-0.049
Obs.	72.000	72.000	72.000	72.000	72.000	72.000	72.000	72.000	72.000	72.000	72.000

Notes: This table reports results for time series regressions of consumption growth volatility on financial integration indexes for the emerging coutries group. Consumption growth volatility is computed as a GARCH(4,4) model. Equity market integration is captured by the (*i*) cross-country standard correlation (ρ, Panel A), (*ii*) adjusted R-squared (R^2, Panel B), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, Panel C). Crisis Dummy takes value one in the period 2007:Q3-2009:Q2, zero otherwise.
Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Sample period: 2000:Q1 - 2018:Q4. Bootstrap standard errors (1000 repetitions) are reported in parenthesis. Sample: 2000:Q1-2018:Q4. Significance at 1%, 5%, 10% are denoted respectively by ***, **, *.

Quantile Regression

Table F.11: Quantile Regressions

	Canada		France		Germany		Italy		Japan		UnitedKingdom		United States	
Panel A: ρ	20th	80th	20th	80th	20th	80th	20th	80th	20th	80th	20th	80th	20th	80th
FI	-0.132	0.181	0.597	-0.121	-0.317	-0.098	0.336	0.072	-0.180	0.252	0.242	-0.166	-0.255	-0.069
	(0.423)	(0.444)	(0.551)	(0.316)	(2.024)	(0.424)	(0.400)	(0.288)	(0.227)	(0.290)	(0.380)	(0.459)	(0.338)	(0.280)
FO	0.099	-0.732*	-0.020	-0.162	0.243	0.065	-0.099	-0.128	10.024	2.813	-0.618	0.402	1.619	0.389
	(0.509)	(0.433)	(0.271)	(0.213)	(1.973)	(0.559)	(0.138)	(0.134)	(9.347)	(3.230)	(3.220)	(2.583)	(1.333)	(0.771)
TO	-0.057	-0.147	-0.125	-0.183	-0.028	0.223	-0.375	-0.171	-0.413	-0.229	-0.071	0.037	-0.003	-1.337**
	(0.417)	(0.229)	(0.411)	(0.281)	(0.603)	(0.159)	(0.390)	(0.305)	(0.452)	(0.584)	(0.377)	(0.280)	(1.142)	(0.658)
CPI	0.007	0.003	0.000	0.002	0.014	0.002	-0.006	0.003	0.007	0.013	0.007	0.005	-0.002	-0.001
	(0.005)	(0.003)	(0.007)	(0.004)	(0.017)	(0.003)	(0.007)	(0.006)	(0.007)	(0.015)	(0.012)	(0.011)	(0.006)	(0.004)
Constant	-0.013***	0.002	-0.007	0.002	-0.017	0.001	-0.004	0.004	-0.013**	0.010**	-0.016**	0.008*	-0.006	0.008***
	(0.004)	(0.002)	(0.005)	(0.003)	(0.013)	(0.001)	(0.004)	(0.004)	(0.006)	(0.005)	(0.008)	(0.005)	(0.006)	(0.003)
Panel B: R^2	20th	80th	20th	80th	20th	80th	20th	80th	20th	80th	20th	80th	20th	80th
FI	0.018	0.267	0.477	0.061	-1.002	-0.117	-1.704	0.173	-13.125	29.191	0.361	-0.155	0.147	-0.085
	(1.845)	(1.005)	(1.138)	(0.218)	(2.046)	(0.407)	(1.963)	(0.705)	(23.271)	(41.813)	(0.470)	(1.380)	(0.221)	(0.162)
FO	0.154	-0.975**	0.029	-0.047	0.398	-0.207	-0.109	-0.144	8.290	3.101	-1.049	0.712	0.646	0.371
	(0.622)	(0.417)	(0.306)	(0.230)	(2.299)	(0.541)	(0.114)	(0.125)	(9.352)	(3.078)	(3.096)	(2.537)	(1.489)	(0.774)
TO	0.066	-0.199	-0.004	-0.165	-0.022	0.237	-0.081	-0.229	-0.287	0.081	-0.108	0.247	0.110	-1.399**
	(0.413)	(0.238)	(0.428)	(0.283)	(0.590)	(0.191)	(0.293)	(0.286)	(0.510)	(0.563)	(0.364)	(0.296)	(1.170)	(0.650)
CPI	0.009	0.000	0.000	0.001	0.011	0.002	-0.005	0.001	0.006	0.010	0.012	0.007	0.000	-0.000
	(0.007)	(0.004)	(0.008)	(0.004)	(0.018)	(0.002)	(0.006)	(0.006)	(0.009)	(0.015)	(0.013)	(0.011)	(0.006)	(0.003)
Constant	-0.016**	0.003	-0.009	0.002	-0.017	0.001	-0.005*	0.005	-0.013**	0.010**	-0.021**	0.006	-0.009	0.007**
	(0.006)	(0.002)	(0.006)	(0.003)	(0.014)	(0.001)	(0.003)	(0.003)	(0.006)	(0.005)	(0.010)	(0.005)	(0.007)	(0.003)
Panel C: θ	20th	80th	20th	80th	20th	80th	20th	80th	20th	80th	20th	80th	20th	80th
FI	-0.115	0.130	-0.262	-0.086	-0.407	-0.099	0.058	-0.099	0.040	0.066	-0.152	-0.530	-0.233	-0.056
	(0.212)	(0.334)	(0.535)	(0.291)	(1.067)	(0.181)	(0.173)	(0.269)	(0.097)	(0.124)	(0.613)	(0.786)	(0.337)	(0.200)
FO	-0.079	-0.933**	0.090	-0.035	0.045	0.165	-0.116	-0.199	6.800	3.321	-0.626	-0.097	1.607	0.416
	(0.567)	(0.407)	(0.333)	(0.240)	(2.246)	(0.530)	(0.152)	(0.121)	(9.117)	(3.507)	(3.142)	(2.665)	(1.628)	(0.836)
TO	0.024	-0.241	-0.046	-0.162	-0.135	0.240	-0.299	-0.296	-0.318	-0.002	-0.081	0.139	0.029	-1.481**
	(0.391)	(0.184)	(0.456)	(0.276)	(0.519)	(0.174)	(0.411)	(0.307)	(0.509)	(0.651)	(0.417)	(0.362)	(1.201)	(0.655)
CPI	0.004	-0.001	0.000	0.001	0.009	0.002	-0.004	-0.000	0.006	0.005	0.009	0.008	0.001	0.000
	(0.006)	(0.004)	(0.008)	(0.004)	(0.019)	(0.002)	(0.007)	(0.006)	(0.008)	(0.015)	(0.014)	(0.010)	(0.006)	(0.003)
Constant	-0.012***	0.003**	-0.006	0.003	-0.014	0.001	-0.005	0.006	-0.012**	0.009	-0.017*	0.007	-0.009	0.008***
	(0.004)	(0.002)	(0.006)	(0.003)	(0.015)	(0.002)	(0.004)	(0.004)	(0.006)	(0.006)	(0.009)	(0.005)	(0.006)	(0.003)

Notes: This table reports results for time series quantile regressions of consumption growth volatility on financial integration indexes for the developed coutries group. The regressions are run on the 20th and 80th percentiles. Consumption growth volatility is computed using a rolling window of 40 quarters Equity market integration is captured by the (*i*) cross-country standard correlation (ρ, Panel A), (*ii*) adjusted R-squared (R^2, Panel B), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, Panel C). Crisis Dummy takes value 1 in the period 2007:Q3-2009:Q2, zero otherwise.
Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Sample period: 2000:Q1 - 2018:Q4. Bootstrap standard errors (1000 repetitions) are reported in parenthesis. Sample: 2000:Q1-2018:Q4. Significance at 1%, 5%, 10% are denoted respectively by ***, **, *.

Table F.12: Quantile Regressions

	Brazil		Chile		Greece		Hungary		India		Israel		Korea		Mexico		Poland		South Africa		Turkey	
Panel A: ρ	20th	80th	20th	80th	20th	80th	20th	80th	20th	80th	20th	80th	20th	80th	20th	80th	20th	80th	20th	80th	20th	80th
FI	0.614	0.575	0.040	-0.190	0.091	-0.074	-0.207	0.347	-0.092	-0.445	-0.732	-0.141	0.014	-0.010	0.039	0.012	0.537	-0.280	-0.025	-0.134	-0.171	-1.454*
	(1.874)	(0.961)	(0.284)	(0.327)	(0.148)	(0.369)	(0.649)	(0.326)	(4.268)	(1.390)	(0.592)	(0.576)	(1.149)	(0.081)	(0.749)	(0.729)	(0.708)	(0.543)	(0.691)	(0.344)	(0.803)	(0.752)
FO	0.061	0.032	-0.012	0.000	-0.005	-0.044	-0.001	-0.001	0.011	-0.035	-0.003	-0.003	0.006	0.030	-0.002	0.002	-0.006	0.009	-0.028*	-0.055	-0.054	0.181
	(0.083)	(0.031)	(0.011)	(0.009)	(0.009)	(0.040)	(0.001)	(0.001)	(0.234)	(0.181)	(0.015)	(0.008)	(0.061)	(0.027)	(0.019)	(0.024)	(0.036)	(0.015)	(0.016)	(0.037)	(0.217)	(0.129)
TO	-1.919	-0.090	-0.014	-0.055	-0.038	0.145	0.008	-0.282	-0.012	-0.031	-0.220	0.001	0.054	-0.138	-0.298	-0.379	-0.096	-0.063	-0.037	-0.065	-0.441	-0.153
	(1.880)	(1.138)	(0.187)	(0.159)	(0.118)	(0.289)	(0.602)	(0.416)	(0.920)	(0.965)	(0.500)	(0.220)	(0.247)	(0.103)	(0.549)	(0.726)	(0.346)	(0.247)	(0.465)	(0.402)	(0.674)	(0.450)
CPI	0.014	0.027*	0.009	-0.007	0.001	0.004	0.005	-0.003	0.001	0.003	0.003	0.004	-0.010	0.002	0.009	0.003	-0.006	0.001	-0.005	-0.013	-0.005	0.000
	(0.018)	(0.014)	(0.013)	(0.007)	(0.002)	(0.006)	(0.008)	(0.006)	(0.015)	(0.021)	(0.014)	(0.009)	(0.019)	(0.005)	(0.008)	(0.004)	(0.012)	(0.007)	(0.015)	(0.013)	(0.009)	(0.004)
Constant	-0.037	-0.008	-0.024	0.018*	-0.005*	0.031***	-0.015	0.014**	-0.002	0.008	-0.017	0.005	-0.008	0.005*	-0.018	0.006	-0.025	0.005	-0.017	0.039**	-0.009	0.017*
	(0.031)	(0.016)	(0.015)	(0.010)	(0.003)	(0.010)	(0.015)	(0.006)	(0.046)	(0.015)	(0.018)	(0.006)	(0.005)	(0.003)	(0.013)	(0.009)	(0.018)	(0.006)	(0.022)	(0.017)	(0.022)	(0.010)
Panel B: R^2	20th	80th	20th	80th	20th	80th	20th	80th	20th	80th	20th	80th	20th	80th	20th	80th	20th	80th	20th	80th	20th	80th
FI	-0.368	0.234	-0.060	0.919	0.010	-0.048	0.035	0.071	-5.057	-1.779	-0.058	0.773	0.006	-0.006	0.014	-0.016	0.303	-0.057	-0.002	-0.068	-0.221	0.505
	(0.660)	(0.319)	(1.172)	(0.951)	(0.313)	(0.563)	(0.274)	(0.181)	(6.311)	(8.619)	(2.328)	(0.967)	(1.661)	(0.382)	(0.256)	(0.304)	(0.357)	(0.270)	(0.560)	(0.721)	(1.391)	(1.074)
FO	0.014	0.018	-0.010	0.002	-0.013	-0.048	-0.001	-0.001**	0.020	-0.051	-0.004	-0.004	0.010	0.008	-0.002	-0.005	-0.004	0.003	-0.030	-0.046	-0.129	0.025
	(0.098)	(0.030)	(0.011)	(0.009)	(0.009)	(0.041)	(0.001)	(0.000)	(0.195)	(0.230)	(0.016)	(0.005)	(0.062)	(0.026)	(0.022)	(0.029)	(0.035)	(0.017)	(0.018)	(0.036)	(0.211)	(0.129)
TO	-1.905	-0.425	-0.026	-0.137	0.060	0.204	0.009	-0.405	0.256	0.086	0.116	-0.006	0.049	-0.092	-0.293	-0.317	-0.242	-0.072	-0.059	0.107	-0.293	0.379
	(1.996)	(1.019)	(0.218)	(0.157)	(0.108)	(0.279)	(0.583)	(0.324)	(0.662)	(0.941)	(0.374)	(0.150)	(0.275)	(0.077)	(0.557)	(0.708)	(0.389)	(0.330)	(0.499)	(0.432)	(0.641)	(0.500)
CPI	0.009	0.025**	0.009	-0.003	0.001	0.004	0.005	-0.002	0.002	0.003	-0.003	0.003	-0.010	-0.001	0.009	0.003	-0.009	-0.003	-0.005	-0.013	-0.005	-0.000
	(0.016)	(0.012)	(0.012)	(0.005)	(0.002)	(0.007)	(0.009)	(0.007)	(0.012)	(0.014)	(0.011)	(0.007)	(0.021)	(0.004)	(0.008)	(0.005)	(0.011)	(0.007)	(0.015)	(0.014)	(0.008)	(0.006)
Constant	-0.028	0.002	-0.024*	0.010	-0.006**	0.031***	-0.015	0.016***	-0.012	0.006	-0.012	0.004	-0.007	0.006**	-0.018	0.006	-0.022	0.007	-0.017	0.034**	-0.010	0.014
	(0.029)	(0.016)	(0.013)	(0.008)	(0.003)	(0.010)	(0.015)	(0.005)	(0.034)	(0.029)	(0.015)	(0.003)	(0.006)	(0.002)	(0.013)	(0.010)	(0.013)	(0.007)	(0.022)	(0.016)	(0.023)	(0.015)
Panel C: θ	20th	80th	20th	80th	20th	80th	20th	80th	20th	80th	20th	80th	20th	80th	20th	80th	20th	80th	20th	80th	20th	80th
FI	0.674	-0.326	-0.018	-0.135	0.029	0.208	0.190	-0.028	-0.062	-0.158	-0.104	0.196	0.140	0.038	-0.968	-0.269	-0.233	-0.727	-0.041	-0.449	-0.140	0.152
	(3.510)	(0.974)	(0.381)	(0.452)	(0.136)	(0.271)	(0.616)	(0.502)	(1.125)	(1.263)	(1.133)	(0.608)	(0.320)	(0.059)	(1.211)	(0.604)	(4.708)	(0.891)	(0.488)	(0.504)	(0.834)	(0.632)
FO	0.050	0.019	-0.010	0.004	-0.012	-0.047	-0.001	-0.001*	0.016	-0.021	-0.003	-0.004	-0.001	0.026	-0.018	-0.003	0.003	-0.010	-0.027	-0.017	-0.060	0.053
	(0.089)	(0.031)	(0.011)	(0.010)	(0.008)	(0.043)	(0.001)	(0.000)	(0.206)	(0.192)	(0.015)	(0.006)	(0.062)	(0.026)	(0.023)	(0.021)	(0.053)	(0.016)	(0.017)	(0.035)	(0.209)	(0.125)
TO	-1.710	-0.719	-0.041	-0.217	0.028	0.212	-0.069	-0.409	0.006	-0.096	0.056	-0.003	0.062	-0.097	-0.156	-0.299	-0.411	-0.156	-0.012	0.084	-0.131	0.725
	(1.827)	(1.179)	(0.191)	(0.208)	(0.119)	(0.269)	(0.588)	(0.429)	(0.780)	(0.816)	(0.458)	(0.249)	(0.251)	(0.089)	(0.590)	(0.739)	(0.506)	(0.268)	(0.427)	(0.379)	(0.752)	(0.609)
CPI	0.017	0.024*	0.009	0.002	0.001	0.004	0.005	-0.002	0.001	0.002	-0.003	0.003	-0.010	0.001	0.009	0.002	-0.010	-0.009	-0.005	-0.016	-0.005	-0.001
	(0.016)	(0.013)	(0.014)	(0.008)	(0.002)	(0.006)	(0.008)	(0.007)	(0.010)	(0.018)	(0.012)	(0.008)	(0.023)	(0.004)	(0.006)	(0.005)	(0.014)	(0.007)	(0.013)	(0.012)	(0.009)	(0.005)
Constant	-0.039	0.002	-0.023	0.008	-0.006**	0.031***	-0.016	0.016***	-0.003	0.004	-0.012	0.005	-0.008	0.004*	-0.025**	0.006	-0.020	0.011	-0.017	0.037**	-0.006	0.014
	(0.028)	(0.016)	(0.014)	(0.010)	(0.002)	(0.010)	(0.013)	(0.006)	(0.030)	(0.016)	(0.015)	(0.006)	(0.006)	(0.002)	(0.011)	(0.010)	(0.020)	(0.007)	(0.019)	(0.016)	(0.023)	(0.013)

Notes: This table reports results for time series quantile regressions of consumption growth volatility on financial integration indexes for the emerging coutries group. The regressions are run on the 20th and 80th percentiles. Consumption growth volatility is computed using a rolling window of 40 quarters. Equity market integration is captured by the (*i*) cross-country standard correlation (ρ, Panel A), (*ii*) adjusted R-squared (R^2, Panel B), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, Panel C). Crisis Dummy takes value 1 in the period 2007:Q3-2009:Q2, zero otherwise.

Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Sample period: 2000:Q1 - 2018:Q4. Bootstrap standard errors (1000 repetitions) are reported in parenthesis. Sample: 2000:Q1-2018:Q4. Significance at 1%, 5%, 10% are denoted respectively by ***, **, *.

Bond Market Integration

Table F.13: Time-Series Regressions: Developed Countries (DEV)

Panel A: ρ	Canada	France	Germany	Italy	Japan	United Kingdom	United States
FI	-0.000	-0.002	-0.029	-0.022	-0.063	-0.011	0.017
	(0.072)	(0.030)	(0.177)	(0.081)	(0.352)	(0.188)	(0.063)
FO	-0.095	-0.173	0.130	-0.140	5.721	-1.349	0.347
	(0.537)	(0.215)	(1.128)	(0.168)	(5.196)	(1.924)	(0.965)
TO	-0.217	-0.313	0.294	-0.347	-0.416	-0.000	-0.949
	(0.577)	(0.343)	(0.347)	(0.322)	(0.459)	(0.251)	(0.810)
CPI	0.002	0.004	0.009	-0.001	0.015	0.007	-0.000
	(0.006)	(0.005)	(0.013)	(0.007)	(0.010)	(0.008)	(0.004)
Constant	-0.007**	-0.005*	-0.014**	-0.001	0.003	-0.005	0.000
	(0.003)	(0.003)	(0.007)	(0.004)	(0.006)	(0.005)	(0.003)
Adj. R^2	-0.048	-0.039	-0.026	-0.032	0.005	-0.028	0.013
Obs.	75	75	75	70	75	75	75

Panel B: R^2	Canada	France	Germany	Italy	Japan	United Kingdom	United States
FI	0.071*	0.017	-0.064	-0.007	0.049	0.011	-0.101*
	(0.043)	(0.026)	(0.045)	(0.025)	(0.111)	(0.060)	(0.052)
FO	-0.897**	-0.129	0.881	-0.181	6.337	-1.162	0.308
	(0.352)	(0.442)	(1.061)	(0.142)	(5.263)	(1.797)	(0.615)
TO	-0.580	-0.387	-0.063	-0.280	-0.240	-0.132	-1.527**
	(0.367)	(0.420)	(0.281)	(0.349)	(0.376)	(0.285)	(0.610)
CPI	0.004	0.004	0.013	-0.000	0.010	0.008	0.001
	(0.004)	(0.005)	(0.010)	(0.006)	(0.008)	(0.007)	(0.003)
Constant	-0.005**	-0.005	-0.011	-0.001	0.005	-0.003	0.001
	(0.002)	(0.003)	(0.007)	(0.004)	(0.006)	(0.004)	(0.002)
Adj. R^2	0.130	-0.040	-0.023	-0.045	-0.012	-0.008	0.267
Obs.	69	70	69	64	69	69	69

Panel C: θ	Canada	France	Germany	Italy	Japan	United Kingdom	United States
FI	0.130	-0.023	-0.155	-0.011	0.042	0.065	-0.047
	(0.133)	(0.052)	(0.160)	(0.025)	(0.060)	(0.150)	(0.069)
FO	-0.094	-0.184	0.088	-0.118	5.940	-1.497	0.401
	(0.539)	(0.221)	(1.070)	(0.141)	(4.902)	(1.890)	(0.955)
TO	-0.195	-0.330	0.324	-0.298	-0.423	0.002	-0.965
	(0.580)	(0.341)	(0.325)	(0.315)	(0.445)	(0.277)	(0.834)
CPI	0.003	0.003	-0.002	-0.001	0.015	0.006	-0.000
	(0.006)	(0.005)	(0.011)	(0.006)	(0.010)	(0.009)	(0.004)
Constant	-0.007**	-0.005*	-0.010*	-0.001	0.003	-0.004	-0.000
	(0.003)	(0.003)	(0.006)	(0.004)	(0.006)	(0.005)	(0.003)
Adj. R^2	-0.042	-0.038	0.016	-0.038	0.006	-0.027	0.011
Obs.	75	75	75	75	75	75	75

Notes: This table reports results for time series regressions of consumption growth volatility on bond market integration indexes for the developed coutries group. Consumption growth volatility is computed using a rolling window of 40 quarters. Bond market market integration is captured by the (*i*) cross-country standard correlation (ρ, Panel A), (*ii*) adjusted R-squared (R^2, Panel B), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, Panel C).
Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Sample period: 2000:Q1 - 2018:Q4. Bootstrap standard errors (1000 repetitions) are reported in parenthesis. Sample: 2000:Q1-2018:Q4. Significance at 1%, 5%, 10% are denoted respectively by ***, **, *.

F.2 Panel Fixed Effect

Subprime Crisis

Table F.14: Dynamic Fixed Effect Regressions

	DEV			EM		
	(1)	(2)	(3)	(1)	(2)	(3)
Long-run						
ρ	2.174***			-0.036		
	(0.692)			(0.593)		
R^2		3.956			6.518**	
		(2.427)			(2.674)	
θ			2.497**			1.836
			(0.978)			(1.378)
Short-run						
ECM	-0.036***	-0.023**	-0.031***	-0.025***	-0.025***	-0.024***
	(0.010)	(0.011)	(0.010)	(0.006)	(0.006)	(0.006)
ρ	-0.103			-0.073		
	(0.099)			(0.072)		
R^2		-0.084			0.019	
		(0.183)			(0.039)	
θ			-0.029			-0.036
			(0.067)			(0.151)
FO	-0.084	-0.080	-0.079	-0.001	-0.001	-0.001
	(0.195)	(0.200)	(0.197)	(0.001)	(0.001)	(0.001)
TO	0.011	0.038	0.029	-0.080	-0.066	-0.055
	(0.136)	(0.138)	(0.136)	(0.141)	(0.140)	(0.142)
CPI	0.003	0.004	0.003	0.006*	0.006**	0.006**
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Crisis	0.014***	0.015***	0.012***	0.007	0.009	0.008
	(0.004)	(0.004)	(0.004)	(0.008)	(0.008)	(0.008)
Cosntant	-0.053***	-0.080**	-0.047***	0.028*	-0.118**	-0.011
	(0.014)	(0.031)	(0.014)	(0.017)	(0.049)	(0.027)

Notes: This table reports results for dynamic fixed effect regressions of consumption growth volatility on financial integration indexes for the developed and emerging coutries groups. Consumption growth volatility is computed using a rolling window of 40 quarters. Equity market integration is captured by the (*i*) cross-country standard correlation (ρ, spec. (1)), (*ii*) adjusted R-squared (R^2, spec. (2)), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, spec. (3)). Crisis dummy takes value one in the perido 2007:Q3 - 2009:Q2, zero otherwise.
Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Clustered standard errors are reported in parenthesis. Sample: 2000:Q1-2018:Q4. Significance at 1%, 5%, 10% are denoted respectively by ***, **, *.

Income Volatility

Table F.15: Dynamic Fixed Effect Regressions

	DEV			EM		
	(1)	(2)	(3)	(1)	(2)	(3)
Long-run						
ρ	0.027***			0.002		
	(0.004)			(0.013)		
R^2		0.067*			0.042	
		(0.039)			(0.033)	
θ			0.034***			0.014
			(0.004)			(0.022)
Short-run						
ECM	-0.056***	-0.019	-0.046***	-0.037***	-0.039***	-0.036***
	(0.019)	(0.013)	(0.009)	(0.006)	(0.008)	(0.010)
ρ	0.001			-0.000		
	(0.002)			(0.001)		
R^2		0.005			0.003*	
		(0.003)			(0.001)	
θ			-0.000			0.003**
			(0.001)			(0.001)
FO	-0.002**	-0.002**	-0.002*	-0.000***	-0.000***	-0.000***
	(0.001)	(0.001)	(0.001)	(0.000)	(0.000)	(0.000)
TO	-0.009***	-0.009***	-0.009***	-0.002***	-0.002***	-0.002*
	(0.003)	(0.003)	(0.002)	(0.001)	(0.001)	(0.001)
CPI	-0.000***	-0.000***	-0.000***	0.000*	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Constant	-0.001**	-0.001*	-0.001***	0.000	-0.001	-0.000
	(0.000)	(0.001)	(0.000)	(0.000)	(0.001)	(0.001)

Notes: This table reports results for dynamic fixed effect regressions of income growth volatility on financial integration indexes for the developed and emerging coutries groups. Income growth volatility is computed using a rolling window of 40 quarters. Equity market integration is captured by the (*i*) cross-country standard correlation (ρ, spec. (1)), (*ii*) adjusted R-squared (R^2, spec. (2)), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, spec. (3)).
Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Clustered standard errors are reported in parenthesis. Sample: 2000:Q1-2018:Q4. Significance at 1%, 5%, 10% are denoted respectively by ***, **, *.

Real Exchange Rate Volatility

Table F.16: Dynamic Fixed Effect Regressions

	DEV			EM		
	(1)	(2)	(3)	(1)	(2)	(3)
Long-run						
ρ	0.649			-7.855		
	(0.849)			(7.596)		
R^2		1.337			-161.033	
		(3.352)			(1658.999)	
θ			-1.261			-23.898
			(1.466)			(63.253)
Short-run						
ECM	0.318	0.265	0.313	-0.059	-0.006	-0.024
	(0.274)	(0.246)	(0.250)	(0.052)	(0.064)	(0.065)
ρ	1.480			0.230		
	(1.453)			(0.251)		
R^2		1.036			-0.032	
		(2.438)			(0.112)	
θ			0.657			0.075
			(0.557)			(0.222)
FO	-0.174	-0.143	-0.506	-0.003*	-0.003*	-0.004**
	(3.347)	(3.184)	(3.660)	(0.002)	(0.002)	(0.002)
TO	-0.831*	-1.059*	-1.031*	-0.172	-0.089	-0.340
	(0.491)	(0.547)	(0.542)	(0.641)	(0.638)	(0.640)
CPI	0.029	0.025	0.018	0.008	0.009	0.009
	(0.037)	(0.033)	(0.028)	(0.022)	(0.021)	(0.023)
Constant	-0.047	0.146	-0.525***	0.385***	0.838*	0.434
	(0.242)	(0.803)	(0.195)	(0.111)	(0.441)	(0.279)

Notes: This table reports results for dynamic fixed effect regressions of consumption growth volatility on financial integration indexes for the developed and emerging coutries groups. Consumption growth volatility is computed using a rolling window of 32 quarters. Equity market integration is captured by the (*i*) cross-country standard correlation (ρ, spec. (1)), (*ii*) adjusted R-squared (R^2, spec. (2)), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, spec. (3)). Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Sample period: 2000:Q1 - 2018:Q4. Clustered standard errors are reported in parenthesis. Sample: 2000:Q1-2018:Q4. Significance at 1%, 5%, 10% are denoted respectively by ***, **, *.

Different Rolling Window

Table F.17: Dynamic Fixed Effect Regressions

	DEV			EM		
	(1)	(2)	(3)	(1)	(2)	(3)
Long-run						
ρ	-0.125			1.273		
	(0.713)			(1.185)		
R^2		-0.454			-0.423	
		(0.810)			(2.871)	
θ			-0.306***			12.686
			(0.110)			(9.108)
Short-run						
ECM	0.227***	0.227***	0.207***	-0.035***	-0.039***	-0.038***
	(0.047)	(0.050)	(0.056)	(0.005)	(0.006)	(0.006)
ρ	0.028			0.085		
	(0.166)			(0.082)		
R^2		0.103			0.193	
		(0.191)			(0.180)	
θ			-0.020			0.483
			(0.032)			(0.306)
FO	0.141	0.144	0.106	0.003***	0.003**	0.003***
	(0.193)	(0.187)	(0.193)	(0.001)	(0.001)	(0.001)
TO	-0.175**	-0.170*	-0.185*	-0.662***	-0.674***	-0.655***
	(0.084)	(0.090)	(0.098)	(0.193)	(0.188)	(0.180)
CPI	0.001	0.001	0.001	0.002	0.001	0.002
	(0.002)	(0.002)	(0.002)	(0.004)	(0.005)	(0.004)
Constant	-0.002*	-0.002**	-0.052***	-0.007	0.048	0.032***
	(0.001)	(0.001)	(0.011)	(0.035)	(0.102)	(0.008)

Notes: This table reports results for dynamic fixed effect regressions of consumption growth volatility on financial integration indexes for the developed and emerging coutries groups. Consumption growth volatility is computed using a rolling window of 32 quarters. Equity market integration is captured by the (*i*) cross-country standard correlation (ρ, spec. (1)), (*ii*) adjusted R-squared (R^2, spec. (2)), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, spec. (3)). Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Sample period: 2000:Q1 - 2018:Q4. Clustered standard errors are reported in parenthesis. Sample: 2000:Q1-2018:Q4. Significance at 1%, 5%, 10% are denoted respectively by ***, **, *.

GARCH

Table F.18: Dynamic Fixed Effect Regressions

	DEV			EM		
	(1)	(2)	(3)	(1)	(2)	(3)
Long-run						
ρ	0.518			0.079		
	(1.078)			(1.133)		
R^2		-1.293***			0.929	
		(0.316)			(1.720)	
θ			0.893			0.174
			(0.768)			(2.798)
Short-run						
ECM	-0.526***	-0.528***	-0.529***	-0.744***	-0.736***	-0.743***
	(0.020)	(0.014)	(0.022)	(0.131)	(0.131)	(0.131)
ρ	-1.012*			-0.330		
	(0.540)			(0.936)		
R^2		-0.250			-1.661	
		(0.949)			(1.600)	
θ			-0.627			-2.435
			(0.534)			(2.899)
FO	-1.216*	-0.607	-1.255*	0.004	0.003	0.004
	(0.698)	(0.417)	(0.651)	(0.009)	(0.009)	(0.009)
TO	2.395*	2.705*	2.619*	-1.201	-1.513	-1.504
	(1.342)	(1.436)	(1.491)	(3.836)	(3.698)	(3.628)
CPI	0.001	0.002	0.004	0.310**	0.308***	0.306**
	(0.049)	(0.049)	(0.048)	(0.123)	(0.119)	(0.126)
Constant	0.174	1.061***	0.045	2.014**	1.473	1.943
	(0.509)	(0.177)	(0.331)	(0.943)	(1.272)	(1.839)

Notes: This table reports results for dynamic fixed effect regressions of consumption growth volatility on financial integration indexes for the developed and emerging coutries groups. Consumption growth volatility is computed as a GARCH(4,4) model. Equity market integration is captured by the (*i*) cross-country standard correlation (ρ, spec. (1)), (*ii*) adjusted R-squared (R^2, spec. (2)), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, spec. (3)).
Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Clustered standard errors are reported in parenthesis. Sample: 2000:Q1-2018:Q4. Significance at 1%, 5%, 10% are denoted respectively by ***, **, *.

Quantile Regression

Table F.19: Panel Quantile Regression

	DEV						EM					
	ρ		R^2		θ		ρ		R^2		θ	
	20th	80th	20th	80th	20th	80th	20th	80th	20th	80th	20th	80th
FI	-0.117	0.075	-0.207	0.011	0.010	0.044	-0.109	-0.028	0.004	-0.017	0.043	0.029
	(0.178)	(0.150)	(0.269)	(0.228)	(0.114)	(0.100)	(0.169)	(0.121)	(0.032)	(0.023)	(0.175)	(0.125)
FO	0.030	-0.228	0.033	-0.224	0.026	-0.229	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001
	(0.257)	(0.217)	(0.247)	(0.209)	(0.241)	(0.210)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
TO	0.005	-0.255	0.016	-0.257	0.020	-0.261	0.030	-0.275*	0.030	-0.282**	0.030	-0.276*
	(0.240)	(0.203)	(0.226)	(0.191)	(0.223)	(0.194)	(0.202)	(0.145)	(0.200)	(0.143)	(0.199)	(0.142)
CPI	0.005	0.002	0.005	0.002	0.005	0.002	0.007	0.008***	0.007	0.008***	0.007	0.008***
	(0.004)	(0.003)	(0.004)	(0.003)	(0.004)	(0.003)	(0.004)	(0.003)	(0.004)	(0.003)	(0.004)	(0.003)

Notes: This table reports results for panel quantile regressions of consumption growth volatility on financial integration indexes for the developed coutries group. The regressions are run on the 20th and 80th percentiles. Consumption growth volatility is computed as a GARCH(4,4) model. Equity market integration is captured by the (*i*) cross-country standard correlation (ρ, Panel A), (*ii*) adjusted R-squared (R^2, Panel B), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, Panel C).

Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Sample period: 2000:Q1 - 2018:Q4. Standard errors are reported in parenthesis. Sample: 2000:Q1-2018:Q4. Significance at 1%, 5%, 10% are denoted respectively by ***, **, *.

Bond Market Integration

Table F.20: Dynamic Fixed Effect Regressions

	DEV		
Long-run	(1)	(2)	(3)
ρ	0.225		
	(0.166)		
R^2		-1.338**	
		(0.581)	
θ			0.713
			(1.488)
Short-run			
ECM	-0.041***	-0.033**	-0.039***
	(0.014)	(0.014)	(0.012)
ρ	-0.019*		
	(0.011)		
R^2		0.012	
		(0.020)	
θ			-0.035
			(0.042)
FO	-0.167*	-0.286**	-0.094
	(0.087)	(0.114)	(0.127)
TO	-0.106	-0.303***	-0.095
	(0.117)	(0.107)	(0.114)
CPI	0.004	0.004	0.004
	(0.003)	(0.003)	(0.003)
Constant	0.013*	0.017**	-0.001
	(0.008)	(0.008)	(0.043)

Notes: This table reports results for dynamic fixed effect regressions of consumption growth volatility on Bond market integration indexes for the developed and emerging coutries groups. Income growth volatility is computed using a rolling window of 40 quarters. Bond market integration is captured by the (*i*) cross-country standard correlation (ρ, spec. (1)), (*ii*) adjusted R-squared (R^2, spec. (2)), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, spec. (3)).
Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Clustered standard errors are reported in parenthesis. Sample: 2000:Q1-2018:Q4. Significance at 1%, 5%, 10% are denoted respectively by ***, **, *.

F.3 Pooled Mean Group

Subprime Crisis

Table F.21: Pooled Mean Group Regression - DEV

Panel A: ρ	ECM	α	β_{FI}	β_{FO}	β_{TO}	β_{CPI}	β_{CRISIS}
Long Run			1.666***				
			(0.424)				
Canada	-0.030*	-0.055**	0.164	0.386	0.107	0.004	0.030***
	(0.018)	(0.024)	(0.253)	(0.601)	(0.354)	(0.006)	(0.011)
France	-0.029*	-0.055*	0.614	-0.405	-0.268	0.003	0.005
	(0.017)	(0.032)	(0.679)	(0.326)	(0.377)	(0.006)	(0.009)
Germany	-0.047**	-0.083**	-0.026	0.898	0.341	0.005	0.009
	(0.019)	(0.040)	(0.566)	(1.749)	(0.365)	(0.010)	(0.014)
Italy	-0.045**	-0.068**	-0.068	-0.101	-0.297	0.001	-0.000
	(0.019)	(0.031)	(0.358)	(0.210)	(0.354)	(0.008)	(0.011)
Japan	-0.047**	-0.034	-0.673**	7.817*	-0.256	0.010	0.021
	(0.024)	(0.021)	(0.319)	(4.136)	(0.704)	(0.010)	(0.021)
United Kingdom	-0.045**	-0.064***	-0.081	-1.320	0.042	0.001	0.021***
	(0.018)	(0.020)	(0.156)	(1.412)	(0.158)	(0.005)	(0.007)
United States	-0.016*	-0.028**	0.060	0.216	-0.450	-0.000	0.020***
	(0.010)	(0.012)	(0.101)	(0.603)	(0.465)	(0.003)	(0.006)
Panel B: R^2	ECM	α	β_{FI}	β_{FO}	β_{TO}	β_{CPI}	β_{CRISIS}
Long Run			5.530*				
			(2.939)				
Canada	-0.032	-0.165*	-1.108	0.292	-0.070	0.003	0.025**
	(0.023)	(0.100)	(0.760)	(0.621)	(0.339)	(0.006)	(0.012)
France	-0.012	-0.063	0.200	-0.391	-0.231	0.004	0.007
	(0.009)	(0.040)	(0.479)	(0.332)	(0.379)	(0.006)	(0.008)
Germany	-0.028**	-0.139**	-0.849	0.796	0.384	0.003	0.010
	(0.014)	(0.067)	(0.693)	(1.729)	(0.361)	(0.010)	(0.013)
Italy	-0.028*	-0.133**	-1.337**	-0.118	-0.382	0.001	0.005
	(0.016)	(0.065)	(0.524)	(0.204)	(0.345)	(0.008)	(0.010)
Japan	-0.007	-0.033	-15.447	7.839*	-0.036	0.013	0.024
	(0.031)	(0.144)	(41.784)	(4.582)	(0.774)	(0.012)	(0.022)
United Kingdom	-0.035*	-0.167***	0.343	-0.747	0.081	0.003	0.022***
	(0.019)	(0.042)	(0.289)	(1.386)	(0.154)	(0.005)	(0.007)
United States	-0.009	-0.044**	0.106	0.221	-0.468	-0.001	0.020***
	(0.007)	(0.020)	(0.136)	(0.602)	(0.464)	(0.003)	(0.006)
Panel C: θ	ECM	α	β_{FI}	β_{FO}	β_{TO}	β_{CPI}	β_{CRISIS}
Long Run			3.558***				
			(1.001)				
Canada	-0.027*	-0.071**	0.004	0.429	0.017	0.004	0.029**
	(0.015)	(0.030)	(0.210)	(0.597)	(0.332)	(0.006)	(0.011)
France	-0.016	-0.045	-0.194	-0.357	-0.224	0.004	0.008
	(0.012)	(0.029)	(0.369)	(0.331)	(0.376)	(0.006)	(0.008)
Germany	-0.041**	-0.104**	-0.551	0.896	0.355	0.005	0.009
	(0.016)	(0.042)	(0.523)	(1.750)	(0.364)	(0.010)	(0.014)
Italy	-0.023*	-0.053*	-0.029	-0.112	-0.258	0.001	0.002
	(0.013)	(0.029)	(0.280)	(0.216)	(0.370)	(0.008)	(0.011)
Japan	-0.020*	-0.031**	0.014	7.934*	-0.105	0.010	0.010
	(0.011)	(0.015)	(0.123)	(4.241)	(0.717)	(0.011)	(0.019)
United Kingdom	-0.071***	-0.157***	-0.702***	-1.021	0.057	0.003	0.018**
	(0.021)	(0.040)	(0.242)	(1.326)	(0.147)	(0.005)	(0.007)
United States	-0.024**	-0.057***	-0.092	0.252	-0.522	-0.001	0.018***
	(0.012)	(0.022)	(0.154)	(0.599)	(0.458)	(0.003)	(0.006)

Notes: This table reports results for pooled mean group regressions of consumption growth volatility on financial integration indexes for the developed coutries group. Consumption growth volatility is computed using a rolling window of 40 quarters. Equity market integration is captured by the (*i*) cross-country standard correlation (ρ, Panel A), (*ii*) adjusted R-squared (R^2, Panel B), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, Panel C). Crisis dummy takes value one in the period 2007:Q3 - 2009:Q2, zero otherwise
Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Sample period: 2000:Q1 - 2018:Q4. Standard errors are reported in parenthesis. Sample: 2000:Q1-2018:Q4. Significance at 1%, 5%, 10% are denoted respectively by ***, **, *.

Table F.22: Pooled Mean Group Regression - EM

Panel A: ρ	ECM	α	β_{FI}	β_{FO}	β_{TO}	β_{CPI}	β_{CRISIS}
Long Run			-0.592***				
			(0.150)				
Brazil	-0.029	0.019	1.287	0.066**	-0.855	0.020*	0.031
	(0.059)	(0.106)	(0.935)	(0.033)	(0.963)	(0.012)	(0.020)
Chile	-0.286***	0.465***	0.064	-0.001	-0.072	0.014***	-0.042***
	(0.070)	(0.113)	(0.196)	(0.006)	(0.124)	(0.004)	(0.010)
Greece	-0.005	0.022	-0.114	0.005	-0.075	0.005	0.059**
	(0.012)	(0.023)	(0.252)	(0.039)	(0.327)	(0.006)	(0.026)
Hungary	-0.023	0.025	-0.082	-0.000	-0.058	0.009	0.027
	(0.026)	(0.045)	(0.423)	(0.001)	(0.444)	(0.007)	(0.017)
India	-0.016	0.051	-3.308**	0.009	-0.281	0.015	-0.118**
	(0.032)	(0.091)	(1.623)	(0.294)	(0.933)	(0.016)	(0.058)
Israel	-0.015	0.012	-0.676	-0.012	-0.111	0.010	0.044**
	(0.048)	(0.086)	(0.628)	(0.009)	(0.336)	(0.009)	(0.020)
Korea	-0.005	0.024	-0.123	0.019	0.165	-0.041**	-0.027
	(0.012)	(0.027)	(0.199)	(0.109)	(0.378)	(0.019)	(0.025)
Mexico	-0.000	-0.019	0.058	0.008	-0.861	0.013	0.061**
	(0.038)	(0.072)	(0.100)	(0.045)	(0.587)	(0.012)	(0.031)
Poland	-0.577***	0.638***	0.422	0.018	-0.020	-0.003	-0.000
	(0.027)	(0.096)	(0.428)	(0.011)	(0.188)	(0.005)	(0.011)
South Africa	0.008	-0.010	-0.089	-0.031**	-0.030	-0.001	0.024
	(0.021)	(0.023)	(0.097)	(0.015)	(0.291)	(0.008)	(0.017)
Turkey	-0.025	0.064	0.235	-0.033	0.218	-0.000	0.041**
	(0.024)	(0.072)	(0.553)	(0.094)	(0.309)	(0.004)	(0.018)

Panel B: R^2	ECM	α	β_{FI}	β_{FO}	β_{TO}	β_{CPI}	β_{CRISIS}
Long Run			-0.366***				
			(0.065)				
Brazil	-0.042	0.034	-0.209	0.058*	-0.795	0.017	0.029
	(0.059)	(0.090)	(0.379)	(0.033)	(0.976)	(0.012)	(0.020)
Chile	-0.348***	0.537***	-0.458	0.003	-0.041	0.016***	-0.047***
	(0.065)	(0.102)	(0.447)	(0.005)	(0.114)	(0.004)	(0.009)
Greece	-0.007	0.026	-0.028	0.004	-0.107	0.005	0.054**
	(0.014)	(0.026)	(0.080)	(0.040)	(0.329)	(0.006)	(0.027)
Hungary	-0.023	0.020	0.025	-0.000	-0.058	0.009	0.025
	(0.026)	(0.038)	(0.190)	(0.001)	(0.446)	(0.007)	(0.017)
India	-0.011	0.038	-7.462	0.007	0.189	0.013	-0.107*
	(0.033)	(0.088)	(5.692)	(0.303)	(0.947)	(0.016)	(0.061)
Israel	-0.020	0.017	0.150	-0.010	-0.016	0.008	0.042**
	(0.050)	(0.082)	(1.131)	(0.009)	(0.330)	(0.009)	(0.021)
Korea	-0.001	0.018	-0.020	-0.002	0.202	-0.045**	-0.029
	(0.010)	(0.022)	(0.070)	(0.111)	(0.373)	(0.019)	(0.025)
Mexico	-0.009	-0.004	0.044	0.012	-0.803	0.013	0.057*
	(0.028)	(0.050)	(0.095)	(0.050)	(0.582)	(0.012)	(0.029)
Poland	-0.603***	0.510***	0.333**	0.017*	-0.031	-0.004	-0.011
	(0.026)	(0.045)	(0.151)	(0.010)	(0.179)	(0.005)	(0.011)
South Africa	-0.018	0.014	-0.033	-0.035**	-0.042	0.003	0.019
	(0.032)	(0.032)	(0.056)	(0.016)	(0.296)	(0.009)	(0.018)
Turkey	-0.016	0.036	0.168	-0.042	0.165	-0.000	0.036**
	(0.019)	(0.054)	(0.541)	(0.093)	(0.303)	(0.004)	(0.015)

Panel C: θ	ECM	α	β_{FI}	β_{FO}	β_{TO}	β_{CPI}	β_{CRISIS}
Long Run			-0.102				
			(0.112)				
Brazil	-0.037	0.024	-1.368	0.055*	-1.019	0.016	0.031
	(0.058)	(0.079)	(1.224)	(0.033)	(0.994)	(0.012)	(0.020)
Chile	-0.353***	0.455***	-0.232	0.003	-0.125	0.016***	-0.044***
	(0.067)	(0.095)	(0.191)	(0.006)	(0.120)	(0.004)	(0.009)
Greece	-0.006	0.020	-0.193	0.008	-0.062	0.005	0.063**
	(0.013)	(0.022)	(0.325)	(0.039)	(0.329)	(0.006)	(0.029)
Hungary	-0.026	0.019	0.240	-0.000	-0.069	0.009	0.024
	(0.026)	(0.034)	(0.505)	(0.001)	(0.444)	(0.007)	(0.017)
India	-0.011	0.034	0.393	0.078	0.108	0.013	-0.127**
	(0.034)	(0.081)	(1.374)	(0.308)	(0.976)	(0.017)	(0.062)
Israel	-0.018	0.011	-0.821	-0.009	-0.051	0.008	0.053**
	(0.050)	(0.069)	(0.634)	(0.009)	(0.325)	(0.009)	(0.021)
Korea	0.000	0.011	0.614**	-0.011	0.089	-0.039**	-0.044*
	(0.009)	(0.020)	(0.243)	(0.104)	(0.360)	(0.018)	(0.025)
Mexico	0.007	-0.021	-2.606***	0.006	-0.930*	0.010	0.080***
	(0.026)	(0.040)	(0.806)	(0.045)	(0.545)	(0.011)	(0.028)
Poland	-0.533***	0.349***	0.597	0.016	0.146	-0.001	0.014
	(0.028)	(0.059)	(0.720)	(0.012)	(0.217)	(0.006)	(0.012)
South Africa	-0.029	0.020	-0.565**	-0.030**	0.016	0.004	0.021
	(0.032)	(0.024)	(0.284)	(0.015)	(0.282)	(0.009)	(0.017)
Turkey	-0.013	0.023	-0.175	-0.047	0.139	0.001	0.038**
	(0.021)	(0.053)	(0.266)	(0.093)	(0.303)	(0.004)	(0.015)

Notes: This table reports results for pooled mean group regressions of consumption growth volatility on financial integration indexes for the emerging coutries group. Consumption growth volatility is computed using a rolling window of 40 quarters. Equity market integration is captured by the (*i*) cross-country standard correlation (ρ, Panel A), (*ii*) adjusted R-squared (R^2, Panel B), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, Panel C). Crisis dummy takes value one in the period 2007:Q3 - 2009:Q2, zero otherwise
Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Sample period: 2000:Q1 - 2018:Q4. Standard errors are reported in parenthesis. Sample: 2000:Q1-2018:Q4. Significance at 1%, 5%, 10% are denoted respectively by ***, **, *.

Income Volatility

Table F.23: Pooled Mean Group Regression - DEV

Panel A: ρ	ECM	α	β_{FI}	β_{FO}	β_{TO}	β_{CPI}
Long Run			0.023***			
			(0.002)			
Canada	-0.117***	-0.002***	-0.000	-0.004	-0.002	-0.000
	(0.025)	(0.000)	(0.002)	(0.005)	(0.003)	(0.000)
France	-0.046*	-0.001	-0.005	-0.000	-0.011***	-0.000**
	(0.026)	(0.000)	(0.005)	(0.003)	(0.003)	(0.000)
Germany	-0.041	-0.000	-0.002	0.016	-0.014***	-0.000*
	(0.027)	(0.000)	(0.012)	(0.021)	(0.004)	(0.000)
Italy	-0.097**	-0.001**	-0.001	-0.002	-0.014***	-0.000***
	(0.038)	(0.001)	(0.003)	(0.002)	(0.003)	(0.000)
Japan	-0.128***	-0.001***	-0.006*	-0.012	-0.009	-0.000***
	(0.027)	(0.000)	(0.003)	(0.034)	(0.006)	(0.000)
United Kingdom	-0.066***	-0.001***	0.004	-0.040*	-0.004*	0.000
	(0.020)	(0.000)	(0.003)	(0.020)	(0.002)	(0.000)
United States	-0.019*	-0.000	0.005***	-0.000	-0.019***	-0.000*
	(0.011)	(0.000)	(0.001)	(0.007)	(0.005)	(0.000)

Panel B: R^2	ECM	α	β_{FI}	β_{FO}	β_{TO}	β_{CPI}
Long Run			0.076***			
			(0.017)			
Canada	-0.056**	-0.004***	-0.020**	-0.002	-0.003	-0.000**
	(0.022)	(0.001)	(0.008)	(0.005)	(0.003)	(0.000)
France	-0.006	-0.000	-0.005	0.001	-0.013***	-0.000**
	(0.008)	(0.001)	(0.005)	(0.003)	(0.003)	(0.000)
Germany	-0.071***	-0.004***	0.026***	0.025	-0.014***	-0.000
	(0.024)	(0.001)	(0.009)	(0.019)	(0.004)	(0.000)
Italy	-0.016	-0.001	-0.003	-0.003	-0.017***	-0.000**
	(0.016)	(0.001)	(0.005)	(0.002)	(0.003)	(0.000)
Japan	0.004	0.000	0.385	-0.034	-0.014**	-0.000*
	(0.017)	(0.001)	(0.393)	(0.040)	(0.006)	(0.000)
United Kingdom	-0.035**	-0.002***	0.006	-0.033	-0.004*	0.000
	(0.015)	(0.001)	(0.004)	(0.021)	(0.002)	(0.000)
United States	-0.006	-0.000	0.004**	0.001	-0.021***	-0.000**
	(0.004)	(0.000)	(0.002)	(0.007)	(0.005)	(0.000)

Panel C: θ	ECM	α	β_{FI}	β_{FO}	β_{TO}	β_{CPI}
Long Run			0.044***			
			(0.006)			
Canada	-0.064***	-0.002***	-0.002	0.001	-0.003	-0.000*
	(0.017)	(0.000)	(0.002)	(0.005)	(0.003)	(0.000)
France	-0.033	-0.001	0.003	-0.001	-0.012***	-0.000**
	(0.020)	(0.001)	(0.003)	(0.003)	(0.003)	(0.000)
Germany	-0.084***	-0.002**	-0.012*	0.021	-0.013***	-0.000*
	(0.030)	(0.001)	(0.007)	(0.020)	(0.004)	(0.000)
Italy	-0.030**	-0.001*	-0.003	-0.002	-0.017***	-0.000***
	(0.015)	(0.000)	(0.002)	(0.002)	(0.003)	(0.000)
Japan	-0.028***	-0.000***	0.001	-0.003	-0.012**	-0.000***
	(0.009)	(0.000)	(0.001)	(0.036)	(0.006)	(0.000)
United Kingdom	-0.108***	-0.003***	-0.007*	-0.035*	-0.004**	-0.000
	(0.023)	(0.001)	(0.004)	(0.019)	(0.002)	(0.000)
United States	-0.022*	-0.001*	0.001	0.001	-0.021***	-0.000**
	(0.012)	(0.000)	(0.002)	(0.007)	(0.005)	(0.000)

Notes: This table reports results for pooled mean group regressions of income growth volatility on financial integration indexes for the developed coutries group. Income growth volatility is computed using a rolling window of 40 quarters. Equity market integration is captured by the (*i*) cross-country standard correlation (ρ, Panel A), (*ii*) adjusted R-squared (R^2, Panel B), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, Panel C).
Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Sample period: 2000:Q1 - 2018:Q4. Standard errors are reported in parenthesis. Sample: 2000:Q1-2018:Q4. Significance at 1%, 5%, 10% are denoted respectively by ***, **, *.

Table F.24: Pooled Mean Group Regression - EM

Panel A: ρ	ECM	α	β_{FI}	β_{FO}	β_{TO}	β_{CPI}
Long Run			0.026***			
			(0.006)			
Brazil	-0.066	-0.001	-0.008	0.000	-0.015*	0.000
	(0.046)	(0.001)	(0.008)	(0.000)	(0.008)	(0.000)
Chile	-0.045*	-0.001**	-0.001	0.000	0.000	0.000***
	(0.025)	(0.000)	(0.003)	(0.000)	(0.002)	(0.000)
Greece	-0.119***	-0.001	-0.002	0.000	-0.000	0.000
	(0.025)	(0.000)	(0.003)	(0.001)	(0.004)	(0.000)
Hungary	-0.044	-0.001	0.011*	-0.000	-0.009	0.000*
	(0.044)	(0.001)	(0.006)	(0.000)	(0.006)	(0.000)
India	-0.114**	-0.001	0.010*	-0.001	-0.001	0.000
	(0.052)	(0.001)	(0.005)	(0.001)	(0.003)	(0.000)
Israel	0.014	0.000	0.004	-0.000	-0.001	-0.000***
	(0.011)	(0.000)	(0.003)	(0.000)	(0.002)	(0.000)
Korea	0.003	0.000	-0.002	-0.000	0.001	-0.001***
	(0.009)	(0.000)	(0.003)	(0.001)	(0.005)	(0.000)
Mexico	-0.007	-0.000	0.000	-0.000	-0.009	0.000
	(0.011)	(0.000)	(0.001)	(0.001)	(0.008)	(0.000)
Poland	0.003	-0.000	0.004	0.000	-0.001	-0.000
	(0.019)	(0.000)	(0.006)	(0.000)	(0.003)	(0.000)
South Africa	-0.012**	-0.000	-0.002***	-0.000	-0.003**	-0.000
	(0.005)	(0.000)	(0.001)	(0.000)	(0.001)	(0.000)
Turkey	0.005	-0.000	0.000	-0.003	-0.010	0.000
	(0.014)	(0.000)	(0.002)	(0.003)	(0.009)	(0.000)

Panel B: R^2	ECM	α	β_{FI}	β_{FO}	β_{TO}	β_{CPI}
Long Run			0.422***			
			(0.019)			
Brazil	-0.010*	-0.003*	-0.002	0.000	-0.014*	-0.000
	(0.005)	(0.002)	(0.003)	(0.000)	(0.008)	(0.000)
Chile	-0.008	-0.003	-0.018***	0.000	0.001	0.000**
	(0.007)	(0.003)	(0.007)	(0.000)	(0.002)	(0.000)
Greece	-0.043***	-0.017***	-0.005	0.000	-0.000	0.000
	(0.007)	(0.003)	(0.010)	(0.001)	(0.004)	(0.000)
Hungary	0.002	0.000	0.003	-0.000	-0.009	0.000*
	(0.002)	(0.001)	(0.003)	(0.000)	(0.006)	(0.000)
India	0.041**	0.016**	0.032*	-0.000	-0.002	0.000
	(0.020)	(0.008)	(0.018)	(0.001)	(0.003)	(0.000)
Israel	0.009***	0.004**	-0.004	-0.000	-0.002	-0.000***
	(0.004)	(0.001)	(0.005)	(0.000)	(0.002)	(0.000)
Korea	-0.002	-0.001	0.017	-0.000	0.002	-0.001***
	(0.024)	(0.010)	(0.049)	(0.001)	(0.005)	(0.000)
Mexico	-0.010*	-0.004**	0.003	-0.001	-0.009	0.000
	(0.005)	(0.002)	(0.007)	(0.001)	(0.007)	(0.000)
Poland	-0.000	-0.000	0.007***	0.000	-0.000	-0.000
	(0.001)	(0.000)	(0.002)	(0.000)	(0.002)	(0.000)
South Africa	-0.004***	-0.001***	0.000	-0.000	-0.003**	-0.000
	(0.001)	(0.001)	(0.004)	(0.000)	(0.002)	(0.000)
Turkey	-0.027*	-0.010*	-0.012	-0.003	-0.009	0.000
	(0.015)	(0.006)	(0.021)	(0.003)	(0.009)	(0.000)

Panel C: θ	ECM	α	β_{FI}	β_{FO}	β_{TO}	β_{CPI}
Long Run			0.068***			
			(0.003)			
Brazil	-0.249***	-0.011***	-0.005	0.000	-0.005	-0.000
	(0.066)	(0.003)	(0.010)	(0.000)	(0.008)	(0.000)
Chile	-0.009	-0.001	-0.001	0.000	-0.000	0.000***
	(0.008)	(0.000)	(0.003)	(0.000)	(0.002)	(0.000)
Greece	-0.066***	-0.002***	-0.002	0.001	0.003	0.000
	(0.014)	(0.000)	(0.004)	(0.001)	(0.005)	(0.000)
Hungary	-0.485***	-0.023***	-0.018***	0.000	0.006	0.000**
	(0.076)	(0.004)	(0.007)	(0.000)	(0.005)	(0.000)
India	0.067*	0.003*	0.008*	0.000	-0.002	0.000
	(0.036)	(0.002)	(0.004)	(0.001)	(0.003)	(0.000)
Israel	0.014**	0.001*	0.000	-0.000	-0.002	-0.000***
	(0.006)	(0.000)	(0.003)	(0.000)	(0.002)	(0.000)
Korea	0.000	0.000	0.005	-0.000	0.002	-0.001***
	(0.007)	(0.000)	(0.003)	(0.001)	(0.005)	(0.000)
Mexico	-0.023	-0.001	-0.016	-0.000	-0.010	0.000
	(0.016)	(0.001)	(0.012)	(0.001)	(0.007)	(0.000)
Poland	0.003	0.000	0.001	0.000	-0.002	-0.000
	(0.015)	(0.001)	(0.009)	(0.000)	(0.003)	(0.000)
South Africa	-0.013**	-0.001**	-0.000	-0.000	-0.003*	-0.000
	(0.006)	(0.000)	(0.002)	(0.000)	(0.002)	(0.000)
Turkey	0.007	-0.000	0.008	-0.003	-0.009	0.000
	(0.014)	(0.000)	(0.007)	(0.003)	(0.009)	(0.000)

Notes: This table reports results for pooled mean group regressions of income growth volatility on financial integration indexes for the emerging coutries group. Income growth volatility is computed using a rolling window of 40 quarters. Equity market integration is captured by the (*i*) cross-country standard correlation (ρ, Panel A), (*ii*) adjusted R-squared (R^2, Panel B), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, Panel C).
Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Sample period: 2000:Q1 - 2018:Q4. Standard errors are reported in parenthesis. Sample: 2000:Q1-2018:Q4. Significance at 1%, 5%, 10% are denoted respectively by ***, **, *.

Real Exchange Rate Volatility

Table F.25: Pooled Mean Group Regression - DEV

Panel A: ρ	ECM	α	β_{FI}	β_{FO}	β_{TO}	β_{CPI}
Long Run			0.608***			
			(0.150)			
Canada	-1.545***	-0.055	-2.272	-0.704	-1.745	0.014
	(0.482)	(0.206)	(3.452)	(7.633)	(4.634)	(0.079)
France	0.352***	0.046	2.093	-4.972**	0.590	-0.058
	(0.124)	(0.055)	(4.089)	(1.987)	(2.086)	(0.036)
Germany	0.639***	-0.053	-2.611	-2.455	-0.877	-0.007
	(0.110)	(0.095)	(2.693)	(8.061)	(1.611)	(0.047)
Italy	-1.323***	0.014	-0.851	3.465	-1.267	-0.193**
	(0.258)	(0.189)	(3.645)	(2.144)	(3.236)	(0.083)
Japan	0.469**	-0.207*	4.894*	-134.053***	-7.669	0.220***
	(0.218)	(0.111)	(2.498)	(31.454)	(5.237)	(0.082)
United Kingdom	1.663***	-0.303	6.223	-48.999	-1.727	-0.013
	(0.522)	(0.251)	(3.986)	(35.070)	(3.922)	(0.135)
United States	1.620***	0.082	2.428*	-33.352***	-3.639	0.054
	(0.473)	(0.203)	(1.472)	(8.577)	(6.149)	(0.042)

Panel B: R^2	ECM	α	β_{FI}	β_{FO}	β_{TO}	β_{CPI}
Long Run			1.348***			
			(0.382)			
Canada	-2.014***	-1.629**	-5.166	-2.115	-0.140	0.004
	(0.474)	(0.730)	(9.889)	(7.374)	(4.122)	(0.075)
France	0.264***	0.224**	1.587	-4.979**	0.599	-0.058
	(0.098)	(0.112)	(2.924)	(2.025)	(2.102)	(0.036)
Germany	0.529***	0.329*	-5.041	-2.349	-1.085	-0.018
	(0.099)	(0.183)	(3.370)	(8.203)	(1.626)	(0.049)
Italy	-1.385***	-0.990**	-7.394	3.104	-2.325	-0.181**
	(0.238)	(0.473)	(5.310)	(2.022)	(3.091)	(0.079)
Japan	0.299	0.152	160.734	-137.080***	-9.623*	0.211**
	(0.200)	(0.160)	(321.230)	(32.729)	(5.242)	(0.086)
United Kingdom	1.571***	0.831	15.498**	-48.131	-1.753	0.037
	(0.493)	(0.592)	(7.298)	(34.698)	(3.860)	(0.136)
United States	1.177***	0.894***	2.180	-32.510***	-3.887	0.045
	(0.389)	(0.264)	(1.930)	(8.337)	(5.935)	(0.041)

Panel C: θ	ECM	α	β_{FI}	β_{FO}	β_{TO}	β_{CPI}
Long Run			0.552**			
			(0.236)			
Canada	-1.993***	0.120	-1.470	-0.428	-0.152	0.011
	(0.528)	(0.388)	(2.781)	(7.411)	(4.144)	(0.076)
France	0.341***	-0.001	2.942	-5.198***	0.846	-0.059*
	(0.115)	(0.069)	(2.280)	(1.982)	(2.086)	(0.036)
Germany	0.600***	-0.129	-0.326	-2.397	-1.216	-0.004
	(0.108)	(0.123)	(2.532)	(8.210)	(1.632)	(0.048)
Italy	-1.251***	0.161	-6.012**	3.566*	-3.079	-0.188**
	(0.255)	(0.255)	(2.784)	(2.094)	(3.298)	(0.081)
Japan	0.216	-0.098	0.084	-136.703***	-10.163*	0.216**
	(0.197)	(0.107)	(1.020)	(32.673)	(5.263)	(0.087)
United Kingdom	1.458***	-0.389	5.414	-54.943	-2.620	-0.057
	(0.547)	(0.307)	(6.641)	(35.687)	(3.967)	(0.139)
United States	1.381**	-0.062	6.177***	-36.588***	-5.521	0.052
	(0.544)	(0.264)	(2.397)	(8.985)	(6.394)	(0.044)

Notes: This table reports results for pooled mean group regressions of consumption growth volatility on financial integration indexes for the developed coutries group. Consumption growth volatility is computed using a rolling window of 32 quarters. Equity market integration is captured by the (*i*) cross-country standard correlation (ρ, Panel A), (*ii*) adjusted R-squared (R^2, Panel B), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, Panel C).
Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Sample period: 2000:Q1 - 2018:Q4. Standard errors are reported in parenthesis. Sample: 2000:Q1-2018:Q4. Significance at 1%, 5%, 10% are denoted respectively by ***, **, *.

Different Rolling Window

Table F.26: Pooled Mean Group Regression - DEV

Panel A: ρ	ECM	α	β_{FI}	β_{FO}	β_{TO}	β_{CPI}
Long Run			-0.305			
			(0.357)			
Canada	0.071	-0.008**	0.460**	-1.099**	-0.172	0.009*
	(0.136)	(0.003)	(0.224)	(0.492)	(0.307)	(0.005)
France	0.095	-0.004	0.069	0.388	-0.109	0.002
	(0.117)	(0.004)	(0.648)	(0.379)	(0.397)	(0.007)
Germany	0.311***	-0.006	0.737	-1.304	0.257	-0.004
	(0.113)	(0.006)	(0.612)	(1.732)	(0.355)	(0.010)
Italy	0.152	-0.002	0.361	0.326	-0.238	0.001
	(0.114)	(0.005)	(0.391)	(0.265)	(0.411)	(0.010)
Japan	0.140	0.005	-0.389	1.121	-0.116	0.002
	(0.131)	(0.006)	(0.257)	(4.799)	(0.789)	(0.014)
United Kingdom	0.427***	-0.001	-0.048	-1.028	-0.193	0.001
	(0.105)	(0.004)	(0.218)	(1.862)	(0.212)	(0.007)
United States	0.408***	-0.001	0.073	-0.272	-0.909*	0.001
	(0.123)	(0.002)	(0.196)	(0.775)	(0.520)	(0.003)

Panel B: R^2	ECM	α	β_{FI}	β_{FO}	β_{TO}	β_{CPI}
Long Run			-0.704			
			(0.720)			
Canada	0.236*	-0.007**	-0.190	-0.876*	-0.287	0.009*
	(0.143)	(0.003)	(0.700)	(0.510)	(0.318)	(0.005)
France	0.080	-0.004	-0.366	0.392	-0.160	0.003
	(0.117)	(0.004)	(0.476)	(0.375)	(0.401)	(0.007)
Germany	0.300***	-0.005	-0.161	-1.015	0.143	-0.002
	(0.114)	(0.006)	(0.596)	(1.750)	(0.373)	(0.011)
Italy	0.092	0.002	-1.287**	0.355	-0.673	-0.001
	(0.113)	(0.005)	(0.508)	(0.257)	(0.412)	(0.010)
Japan	0.129	0.004	-4.010	0.042	0.034	0.005
	(0.133)	(0.006)	(36.061)	(4.806)	(0.795)	(0.014)
United Kingdom	0.431***	-0.002	-0.017	-1.042	-0.184	0.002
	(0.105)	(0.004)	(0.406)	(1.850)	(0.210)	(0.007)
United States	0.369***	-0.001	0.050	-0.047	-1.056**	0.001
	(0.131)	(0.002)	(0.364)	(0.801)	(0.516)	(0.003)

Panel C: θ	ECM	α	β_{FI}	β_{FO}	β_{TO}	β_{CPI}
Long Run			-0.024			
			(0.043)			
Canada	0.227*	-0.028	0.021	-0.883*	-0.307	0.010*
	(0.123)	(0.045)	(0.058)	(0.502)	(0.318)	(0.005)
France	0.014	-0.204**	0.243**	-0.044	-0.138	0.004
	(0.119)	(0.098)	(0.120)	(0.420)	(0.385)	(0.007)
Germany	0.280**	-0.127	0.144	-0.909	0.169	-0.001
	(0.115)	(0.115)	(0.142)	(1.729)	(0.346)	(0.010)
Italy	0.006	-0.279***	0.343***	0.285	-0.330	0.006
	(0.115)	(0.083)	(0.103)	(0.248)	(0.374)	(0.010)
Japan	0.108	-0.038	0.056	0.464	0.088	0.004
	(0.131)	(0.029)	(0.042)	(4.745)	(0.782)	(0.014)
United Kingdom	0.382***	-0.116	0.136	-1.218	-0.215	-0.002
	(0.109)	(0.080)	(0.103)	(1.846)	(0.208)	(0.007)
United States	0.453***	0.013	-0.026	-0.338	-1.023*	0.001
	(0.122)	(0.040)	(0.054)	(0.794)	(0.525)	(0.003)

Notes: This table reports results for pooled mean group regressions of consumption growth volatility on financial integration indexes for the developed coutries group. Consumption growth volatility is computed using a rolling window of 32 quarters. Equity market integration is captured by the (*i*) cross-country standard correlation (ρ, Panel A), (*ii*) adjusted R-squared (R^2, Panel B), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, Panel C). Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Sample period: 2000:Q1 - 2018:Q4. Standard errors are reported in parenthesis. Sample: 2000:Q1-2018:Q4. Significance at 1%, 5%, 10% are denoted respectively by ***, **, *.

Table F.27: Pooled Mean Group Regression - EM

Panel A: ρ	ECM	α	β_{FI}	β_{FO}	β_{TO}	β_{CPI}
Long Run			-0.262			
			(0.172)			
Brazil	-0.126***	0.151**	0.595	0.002	-1.400	0.015
	(0.048)	(0.072)	(0.395)	(0.025)	(1.012)	(0.011)
Chile	-0.002	-0.002	0.726***	0.016	-0.622**	0.000
	(0.034)	(0.049)	(0.248)	(0.012)	(0.260)	(0.009)
Greece	-0.049	0.040	-0.020	-0.030	-0.013	0.001
	(0.042)	(0.041)	(0.176)	(0.027)	(0.197)	(0.004)
Hungary	-0.007	0.014	-0.076	0.002	-0.388	0.023
	(0.015)	(0.031)	(0.100)	(0.001)	(0.641)	(0.014)
India	-0.040	0.065	1.381***	-0.005	0.164	-0.009
	(0.035)	(0.051)	(0.520)	(0.094)	(0.486)	(0.008)
Israel	-0.088**	0.207*	-0.182	0.069	-0.703	-0.050
	(0.045)	(0.118)	(1.397)	(0.048)	(1.814)	(0.052)
Korea	-0.043***	0.019	0.678	-0.701**	-0.225	-0.013
	(0.012)	(0.036)	(0.494)	(0.276)	(0.922)	(0.045)
Mexico	-0.024	0.035	0.284	-0.076	-0.260	-0.006
	(0.044)	(0.068)	(0.605)	(0.077)	(0.746)	(0.015)
Poland	-0.043	0.049	0.082	0.199**	-0.636	0.005
	(0.026)	(0.057)	(0.254)	(0.087)	(0.979)	(0.038)
South Africa	-0.064*	0.053	0.195	0.020	-1.333*	0.020
	(0.034)	(0.052)	(0.244)	(0.041)	(0.706)	(0.019)
Turkey	-0.699***	0.571***	0.499	0.078	-0.932*	-0.017**
	(0.048)	(0.113)	(0.432)	(0.193)	(0.549)	(0.007)
Panel B: R^2	**ECM**	**α**	**β_{FI}**	**β_{FO}**	**β_{TO}**	**β_{CPI}**
Long Run			1.373***			
			(0.362)			
Brazil	-0.086**	-0.010	0.170	-0.010	-1.627	0.014
	(0.039)	(0.028)	(0.213)	(0.026)	(0.999)	(0.011)
Chile	-0.029	-0.002	0.870	0.014	-0.721***	-0.007
	(0.041)	(0.013)	(0.683)	(0.013)	(0.266)	(0.009)
Greece	-0.060	-0.042	-1.602	-0.027	-0.039	0.000
	(0.041)	(0.033)	(1.663)	(0.027)	(0.197)	(0.004)
Hungary	-0.017	0.013	0.025	0.002	-0.327	0.020
	(0.019)	(0.019)	(0.208)	(0.001)	(0.637)	(0.014)
India	-0.014	0.004	0.328	-0.008	-0.084	-0.009
	(0.036)	(0.015)	(0.898)	(0.099)	(0.505)	(0.009)
Israel	-0.098**	0.077	-5.811*	0.061	-1.554	-0.057
	(0.041)	(0.065)	(3.378)	(0.046)	(1.793)	(0.051)
Korea	-0.037***	-0.048	-1.701	-0.625**	-0.421	-0.002
	(0.012)	(0.033)	(3.967)	(0.275)	(0.935)	(0.045)
Mexico	-0.015	0.000	0.133	-0.075	-0.279	-0.006
	(0.045)	(0.017)	(0.398)	(0.078)	(0.745)	(0.014)
Poland	-0.027	-0.013	0.204	0.185**	-0.660	0.008
	(0.021)	(0.034)	(0.622)	(0.087)	(0.992)	(0.038)
South Africa	-0.078**	-0.043	1.651**	0.020	-0.978	0.025
	(0.030)	(0.033)	(0.829)	(0.037)	(0.702)	(0.019)
Turkey	-0.725***	-0.500**	-0.685	-0.006	-1.212**	-0.012*
	(0.047)	(0.252)	(0.646)	(0.184)	(0.529)	(0.007)
	(0.019)	(0.056)	(0.563)	(0.097)	(0.301)	(0.004)
Panel C: θ	**ECM**	**α**	**β_{FI}**	**β_{FO}**	**β_{TO}**	**β_{CPI}**
Long Run			-3.813			
			(.)			
Brazil	-0.126***	0.122**	0.050	-0.001	-1.890*	0.014
	(0.049)	(0.058)	(0.515)	(0.026)	(0.996)	(0.011)
Chile	-0.012	0.016	0.171	0.014	-0.765***	-0.008
	(0.040)	(0.050)	(0.243)	(0.013)	(0.272)	(0.009)
Greece	-0.066*	0.043	0.039	-0.029	0.024	0.001
	(0.039)	(0.030)	(0.221)	(0.027)	(0.192)	(0.004)
Hungary	-0.005	0.008	0.345	0.002	-0.344	0.023
	(0.016)	(0.029)	(0.413)	(0.001)	(0.637)	(0.014)
India	-0.018	0.028	0.419	-0.009	-0.025	-0.010
	(0.036)	(0.045)	(0.389)	(0.098)	(0.503)	(0.009)
Israel	-0.100**	0.210**	-1.465	0.081*	-1.108	-0.049
	(0.044)	(0.107)	(1.884)	(0.049)	(1.810)	(0.051)
Korea	-0.038***	-0.002	1.768***	-0.623**	-0.332	-0.001
	(0.011)	(0.032)	(0.512)	(0.257)	(0.870)	(0.042)
Mexico	-0.027	0.033	0.589	-0.087	-0.239	-0.006
	(0.045)	(0.060)	(0.859)	(0.073)	(0.731)	(0.014)
Poland	-0.039	0.033	0.962	0.187**	-0.571	0.007
	(0.025)	(0.050)	(1.678)	(0.090)	(0.997)	(0.038)
South Africa	-0.062*	0.036	0.757	0.025	-1.307*	0.021
	(0.033)	(0.046)	(0.566)	(0.038)	(0.703)	(0.019)
Turkey	-0.683***	0.408***	3.096***	0.067	-0.951*	-0.018**
	(0.048)	(0.034)	(0.341)	(0.193)	(0.549)	(0.007)

Notes: This table reports results for pooled mean group regressions of consumption growth volatility on financial integration indexes for the emerging coutries group. Consumption growth volatility is computed using a rolling window of 32 quarters. Equity market integration is captured by the (i) cross-country standard correlation (ρ, Panel A), (ii) adjusted R-squared (R^2, Panel B), and (iii) Diebold and Yılmaz (2012) Spill Over index (θ, Panel C).
Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Sample period: 2000:Q1 - 2018:Q4. Standard errors are reported in parenthesis. Sample: 2000:Q1-2018:Q4. Significance at 1%, 5%, 10% are denoted respectively by ***, **, *.

GARCH

Table F.28: Pooled Mean Group Regression - DEV

Panel A: ρ	ECM	α	β_{FI}	β_{FO}	β_{TO}	β_{CPI}
Long Run			-1.136***			
			(0.149)			
Canada	-0.677***	1.190***	-0.730	-1.425	1.688	-0.029
	(0.113)	(0.219)	(1.121)	(2.432)	(1.503)	(0.026)
France	-0.617***	1.072***	1.914	-0.176	0.994	-0.015
	(0.101)	(0.206)	(1.530)	(0.741)	(0.799)	(0.014)
Germany	-0.291***	0.488***	5.089	-1.767	0.384	0.020
	(0.082)	(0.151)	(3.640)	(11.597)	(2.317)	(0.070)
Italy	-0.341***	0.577***	0.417	-0.486	-0.532	-0.037
	(0.089)	(0.148)	(1.317)	(0.769)	(1.163)	(0.030)
Japan	-0.521***	1.024***	-0.161	-6.670	11.685	0.225
	(0.107)	(0.284)	(10.037)	(132.476)	(22.028)	(0.363)
United Kingdom	-1.065***	2.301***	-2.066	-48.345***	0.591	-0.179***
	(0.104)	(0.275)	(1.851)	(17.204)	(1.917)	(0.066)
United States	-0.400***	0.641***	-1.985***	5.268	7.144**	-0.063***
	(0.085)	(0.138)	(0.759)	(4.372)	(3.160)	(0.022)

Panel B: R^2	ECM	α	β_{FI}	β_{FO}	β_{TO}	β_{CPI}
Long Run			-1.268***			
			(0.166)			
Canada	-0.462***	0.928***	2.402	-1.398	1.643	-0.029
	(0.101)	(0.215)	(3.623)	(2.655)	(1.509)	(0.028)
France	-0.737***	1.373***	-0.405	0.383	1.416*	-0.017
	(0.106)	(0.226)	(1.070)	(0.731)	(0.760)	(0.013)
Germany	-0.284***	0.511***	4.086	-1.623	0.641	0.023
	(0.084)	(0.166)	(4.740)	(11.706)	(2.325)	(0.071)
Italy	-0.451***	0.840***	-0.741	-0.333	-0.566	-0.038
	(0.096)	(0.182)	(1.953)	(0.743)	(1.136)	(0.029)
Japan	-0.552***	1.327***	512.459	-15.192	12.636	0.263
	(0.109)	(0.329)	(1290.169)	(132.862)	(21.211)	(0.365)
United Kingdom	-0.979***	2.316***	-0.004	-48.778***	0.598	-0.204***
	(0.102)	(0.293)	(3.636)	(17.944)	(1.987)	(0.069)
United States	-0.367***	0.647***	-1.703*	4.448	7.422**	-0.054**
	(0.083)	(0.152)	(1.011)	(4.435)	(3.176)	(0.022)

Panel C: θ	ECM	α	β_{FI}	β_{FO}	β_{TO}	β_{CPI}
Long Run			-1.525***			
			(0.194)			
Canada	-0.655***	1.285***	1.614*	-2.031	2.029	-0.028
	(0.107)	(0.231)	(0.943)	(2.448)	(1.374)	(0.026)
France	-0.672***	1.269***	1.644**	0.320	1.246	-0.018
	(0.105)	(0.240)	(0.831)	(0.732)	(0.770)	(0.013)
Germany	-0.294***	0.550***	2.699	-1.780	0.761	0.014
	(0.083)	(0.168)	(3.632)	(11.739)	(2.337)	(0.070)
Italy	-0.315***	0.592***	0.235	-0.395	-0.606	-0.038
	(0.086)	(0.157)	(1.043)	(0.778)	(1.228)	(0.030)
Japan	-0.514***	1.125***	-1.676	-20.884	11.007	0.282
	(0.107)	(0.300)	(4.049)	(133.865)	(21.537)	(0.376)
United Kingdom	-0.950***	2.260***	4.532	-49.077***	0.485	-0.213***
	(0.101)	(0.285)	(3.148)	(17.982)	(1.984)	(0.069)
United States	-0.414***	0.738***	-2.148*	4.367	6.896**	-0.048**
	(0.085)	(0.165)	(1.115)	(4.348)	(3.111)	(0.021)

Notes: This table reports results for pooled mean group regressions of consumption growth volatility on financial integration indexes for the developed coutries group. Consumption growth volatility is computed as a GARCH(4,4) model. Equity market integration is captured by the (*i*) cross-country standard correlation (ρ, Panel A), (*ii*) adjusted R-squared (R^2, Panel B), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, Panel C).
Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Sample period: 2000:Q1 - 2018:Q4. Standard errors are reported in parenthesis. Sample: 2000:Q1-2018:Q4. Significance at 1%, 5%, 10% are denoted respectively by ***, **, *.

Table F.29: Pooled Mean Group Regression - EM

Panel A: ρ	ECM	α	β_{FI}	β_{FO}	β_{TO}	β_{CPI}
Long Run			0.077			
			(0.325)			
Brazil	-0.731***	1.694***	1.811	0.072	-32.084*	-0.056
	(0.115)	(0.411)	(3.068)	(0.502)	(18.471)	(0.204)
Chile	-0.542***	1.640***	-7.308*	1.317***	-16.465*	-0.170
	(0.100)	(0.424)	(3.979)	(0.471)	(9.701)	(0.340)
Greece	-0.608***	1.703***	-14.538*	-1.409	8.646	0.531***
	(0.106)	(0.448)	(7.988)	(1.283)	(10.809)	(0.204)
Hungary	-0.621***	1.131***	2.447	-0.002	18.881	-0.090
	(0.114)	(0.425)	(2.442)	(0.034)	(17.339)	(0.313)
India	-0.413***	2.378***	0.042	0.625	-22.322	0.750*
	(0.090)	(0.888)	(4.444)	(4.930)	(24.076)	(0.421)
Israel	-0.990***	2.337***	1.083	-0.056	1.059	0.501***
	(0.112)	(0.409)	(2.825)	(0.192)	(6.427)	(0.171)
Korea	-0.831***	2.091***	6.503	0.074	0.854	0.534
	(0.070)	(0.788)	(11.613)	(6.413)	(21.462)	(1.043)
Mexico	-0.691***	1.268***	0.652	-1.113	-1.297	-0.113
	(0.116)	(0.327)	(1.722)	(0.827)	(9.781)	(0.206)
Poland	-0.316***	0.447*	-0.948	-0.614	6.620	0.134
	(0.090)	(0.240)	(1.448)	(0.480)	(7.015)	(0.226)
South Africa	-0.249***	0.489***	0.590	-0.043	2.720	-0.214**
	(0.074)	(0.162)	(1.173)	(0.192)	(3.436)	(0.093)
Turkey	-1.511***	9.150***	-3.891	-8.753	-39.516	0.260
	(0.104)	(0.952)	(5.737)	(9.543)	(26.545)	(0.313)

Panel B: R^2	ECM	α	β_{FI}	β_{FO}	β_{TO}	β_{CPI}
Long Run			0.792			
			(0.971)			
Brazil	-0.765***	1.401**	-0.192	0.034	-30.281	-0.094
	(0.119)	(0.590)	(0.902)	(0.494)	(18.452)	(0.204)
Chile	-0.533***	1.172**	1.129	1.275***	-16.071	-0.168
	(0.103)	(0.596)	(2.434)	(0.488)	(9.963)	(0.347)
Greece	-0.617***	1.218*	-4.035	-1.543	4.811	0.541***
	(0.107)	(0.690)	(2.621)	(1.306)	(10.871)	(0.206)
Hungary	-0.591***	0.833	1.564	-0.002	18.703	-0.043
	(0.114)	(0.523)	(8.059)	(0.034)	(19.296)	(0.330)
India	-0.433***	2.336**	-5.614	0.672	-23.182	0.728*
	(0.092)	(0.928)	(6.024)	(4.891)	(23.937)	(0.415)
Israel	-1.013***	1.695*	2.571**	-0.021	1.953	0.480***
	(0.110)	(0.947)	(1.239)	(0.187)	(6.266)	(0.167)
Korea	-0.646***	1.371	-13.399**	-0.003	1.392	0.185
	(0.112)	(0.944)	(6.426)	(6.170)	(20.534)	(1.016)
Mexico	-0.689***	0.843	1.290	-0.889	-0.078	-0.120
	(0.116)	(0.614)	(1.654)	(0.858)	(9.491)	(0.205)
Poland	-0.299***	0.241	4.483	-0.633	6.721	0.096
	(0.090)	(0.291)	(4.451)	(0.488)	(7.400)	(0.232)
South Africa	-0.247***	0.324	0.663	0.019	3.030	-0.220**
	(0.074)	(0.244)	(0.667)	(0.200)	(3.430)	(0.092)
Turkey	-1.503***	8.029***	0.357	-8.993	-37.565	0.257
	(0.105)	(1.620)	(3.158)	(9.568)	(26.573)	(0.315)

Panel C: θ	ECM	α	β_{FI}	β_{FO}	β_{TO}	β_{CPI}
Long Run			0.682			
			(0.754)			
Brazil	-0.707***	1.381***	1.586	0.040	-32.259*	-0.127
	(0.116)	(0.510)	(2.719)	(0.493)	(18.547)	(0.208)
Chile	-0.537***	1.289***	-22.788*	1.344***	-17.977*	-0.092
	(0.100)	(0.489)	(12.182)	(0.472)	(9.778)	(0.342)
Greece	-0.642***	1.428***	-1.780	-1.145	7.479	0.509**
	(0.110)	(0.509)	(9.916)	(1.292)	(11.034)	(0.207)
Hungary	-0.530***	0.587	31.603	0.004	7.878	-0.022
	(0.110)	(0.494)	(20.697)	(0.033)	(14.987)	(0.305)
India	-0.414***	2.247**	-18.711	0.538	-24.852	0.744*
	(0.090)	(0.877)	(29.348)	(4.911)	(24.352)	(0.416)
Israel	-0.988***	1.867***	1.913	-0.051	1.154	0.483***
	(0.113)	(0.661)	(6.516)	(0.192)	(6.460)	(0.183)
Korea	-0.817***	1.746*	-14.269	1.284	-0.344	0.635
	(0.070)	(0.892)	(14.428)	(6.370)	(21.137)	(1.024)
Mexico	-0.691***	0.908*	7.119	-1.091	0.161	-0.115
	(0.116)	(0.494)	(14.615)	(0.804)	(9.613)	(0.206)
Poland	-0.327***	0.314	10.363	-0.671	2.619	0.022
	(0.087)	(0.279)	(13.750)	(0.470)	(5.502)	(0.209)
South Africa	-0.248***	0.385**	0.060	-0.036	2.461	-0.228**
	(0.073)	(0.191)	(3.528)	(0.192)	(3.407)	(0.094)
Turkey	-1.512***	8.424***	2.857	-9.654	-36.620	0.240
	(0.104)	(1.197)	(20.899)	(9.467)	(26.338)	(0.314)

Notes: This table reports results for pooled mean group regressions of consumption growth volatility on financial integration indexes for the emerging coutries group. Consumption growth volatility is computed as a GARCH(4,4) model. Equity market integration is captured by the (*i*) cross-country standard correlation (ρ, Panel A), (*ii*) adjusted R-squared (R^2, Panel B), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, Panel C).

Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Sample period: 2000:Q1 - 2018:Q4. Standard errors are reported in parenthesis. Sample: 2000:Q1-2018:Q4. Significance at 1%, 5%, 10% are denoted respectively by ***, **, *.

Bond Market Integration

Table F.30: Pooled Mean Group Regression - DEV

Panel A: ρ	ECM	α	β_{FI}	β_{FO}	β_{TO}	β_{CPI}
Long Run			0.345***			
			(0.090)			
Canada	-0.165***	0.035*	-0.036	-0.429	-0.137	0.002
	(0.045)	(0.019)	(0.047)	(0.553)	(0.309)	(0.006)
France	-0.037*	0.003	-0.010	-0.337	-0.347	0.005
	(0.019)	(0.006)	(0.021)	(0.317)	(0.339)	(0.006)
Germany	-0.091***	0.021	-0.048*	0.252	0.204	0.012
	(0.025)	(0.013)	(0.026)	(1.619)	(0.322)	(0.010)
Italy	-0.010	0.003	-0.023	-0.151	-0.331	-0.002
	(0.024)	(0.010)	(0.042)	(0.229)	(0.348)	(0.009)
Japan	-0.020	0.014	-0.044	5.738	-0.438	0.017
	(0.027)	(0.016)	(0.150)	(4.180)	(0.676)	(0.011)
United Kingdom	-0.035*	0.009	-0.023	-2.151	-0.016	0.008
	(0.018)	(0.009)	(0.029)	(1.669)	(0.178)	(0.006)
United States	-0.029	0.006	0.008	0.022	-0.873*	-0.001
	(0.021)	(0.006)	(0.024)	(0.689)	(0.468)	(0.003)

Panel B: R^2	ECM	α	β_{FI}	β_{FO}	β_{TO}	β_{CPI}
Long Run			-0.823***			
			(0.201)			
Canada	0.026	-0.017	0.058	-0.869*	-0.612**	0.005
	(0.038)	(0.018)	(0.059)	(0.447)	(0.248)	(0.005)
France	-0.040**	0.016	0.042	-0.247	-0.483	0.005
	(0.018)	(0.010)	(0.048)	(0.442)	(0.371)	(0.006)
Germany	-0.159***	0.095***	0.064	-0.336	-0.149	0.009
	(0.037)	(0.024)	(0.062)	(1.431)	(0.300)	(0.008)
Italy	-0.044	0.024	0.020	-0.249	-0.210	-0.005
	(0.028)	(0.017)	(0.068)	(0.238)	(0.365)	(0.009)
Japan	-0.019	0.021	0.057	6.202	-0.277	0.012
	(0.028)	(0.023)	(0.216)	(4.172)	(0.688)	(0.011)
United Kingdom	-0.020	0.010	0.019	-1.236	-0.138	0.008
	(0.020)	(0.014)	(0.058)	(1.399)	(0.158)	(0.006)
United States	-0.013	0.007	-0.094**	0.288	-1.523***	0.001
	(0.031)	(0.015)	(0.041)	(0.490)	(0.381)	(0.002)

Panel C: θ	ECM	α	β_{FI}	β_{FO}	β_{TO}	β_{CPI}
Long Run			5.009***			
			(1.615)			
Canada	-0.074***	-0.251***	-0.060	0.037	-0.159	0.004
	(0.024)	(0.065)	(0.180)	(0.536)	(0.301)	(0.006)
France	-0.015	-0.058	-0.066	-0.281	-0.324	0.003
	(0.014)	(0.046)	(0.084)	(0.323)	(0.345)	(0.006)
Germany	-0.064***	-0.222***	-0.308***	1.122	0.303	0.000
	(0.019)	(0.075)	(0.084)	(1.595)	(0.313)	(0.010)
Italy	0.006	0.015	0.006	-0.175	-0.327	0.002
	(0.004)	(0.011)	(0.038)	(0.215)	(0.320)	(0.009)
Japan	-0.023*	-0.039*	-0.026	5.547	-0.331	0.017
	(0.012)	(0.022)	(0.081)	(4.074)	(0.660)	(0.010)
United Kingdom	-0.043***	-0.145**	-0.073	-0.685	0.035	0.009
	(0.017)	(0.061)	(0.143)	(1.606)	(0.175)	(0.006)
United States	-0.037**	-0.124***	-0.147*	-0.007	-0.964**	-0.000
	(0.016)	(0.039)	(0.082)	(0.629)	(0.442)	(0.003)

Notes: This table reports results for pooled mean group regressions of consumption growth volatility on bond market integration indexes for the developed coutries group. Consumption growth volatility is computed using a rolling window of 40 quarters. Bond market integration is captured by the (*i*) cross-country standard correlation (ρ, Panel A), (*ii*) adjusted R-squared (R^2, Panel B), and (*iii*) Diebold and Yılmaz (2012) Spill Over index (θ, Panel C).
Control variables: $TO := \frac{(IMP+EXP)}{GDP}$, $FO := \frac{FDI}{GDP}$, CPI. Sample period: 2000:Q1 - 2018:Q4. Standard errors are reported in parenthesis. Sample: 2000:Q1-2018:Q4. Significance at 1%, 5%, 10% are denoted respectively by ***, **, *.

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