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Research Summaries

Tax Revenue Response to the Business Cycle

Cemile Sancak, Ricardo Velloso, and Jing Xing



The recent global financial crisis confirms that long-run revenue elasticities do not hold well during sharp expansions and contractions. Tax revenue rises more strongly than the tax base

during economic booms, and revenue collapses more sharply during recessions. As long-run revenue elasticities are commonly used in revenue projections, there is a tendency to overestimate revenue during contractions, and vice-versa. This article reviews a recent paper by the same authors that proposes to improve revenue forecasting by incorporating into the framework estimations of the relationship between tax revenue efficiency and the output gap. In the case of the value-added tax (VAT), the paper finds that a 1 percentage point increase in the output gap corresponds to a 1¼ percentage point increase in the efficiency of this tax or, equivalently, to a 1¼ percent increase in VAT collections.

The literature does not offer a systematic attempt to examine the response of tax revenue to the business cycle. Some studies have (continued on page 2)

Banking Crisis Resolution: Was this Time Different?

Luc Laeven and Fabian Valencia



While there are commonalities between the recent financial crisis and past crises both in terms of underlying causes and policy responses, the scale and scope of interventions differ. Direct fiscal costs to support the financial sector were smaller this time as a consequence of swift policy action and significant indirect support from

expansionary monetary and fiscal policy, the widespread use of guarantees on liabilities, and direct purchases of assets. While these policies have reduced the real impact of the current crisis, they have increased the burden of public debt and the size of government contingent liabilities, raising concerns about fiscal sustainability in some countries.

The global financial crisis that started in the United States in 2007 has resulted in systemically important banking crises and large output losses in a number of countries despite extraordinary policy interventions. (continued on page 4)



Tax Revenue Response to the Business Cycle

(continued from page 1)

explored the long-term, structural determinants of the efficiency of tax collections (Agha and Haughton, 1996; De Mello, 2009), and a few others have looked into the relationship between tax compliance and the business cycle (Plumley, 1996; Cai and Liu, 2009). The paper that is the subject of this article, Sancak, Velloso, and Xing (2010), aims to fill the gap in the literature by estimating the relationship between tax revenue efficiency and the output gap, as well as the response of tax revenue collections to changes in the tax base and output gap.

The paper draws on uniquely detailed databases covering recent years. These databases allow for exploring the annual and quarterly behavior of tax collections, particularly VAT collections, for a large group of advanced and developing economies. Three data sets are used in the estimations. The first consists of annual data from 1995 to 2008 for 32 European Union (EU) countries, and the second of annual data for the same period for 84 advanced and developing economies. The third data set is comprised of quarterly data from the first quarter of 1999 to the first quarter of 2009 for 37 advanced and developing economies.

First, a simple, fixed-effects regression model is estimated—using panel data on advanced and developing economies—where tax revenue efficiency is a (linear) function of the output gap. In some specifications, the paper explores whether this association might be stronger in good times or bad times, which are defined, respectively, as periods when actual real GDP growth is above or below potential real GDP growth. A positive and significant correlation between tax revenue efficiency and the output gap raises the question of whether a decline in tax revenue efficiency during bad times might be fully reversed during good times. In other words, is the impact of bad times on tax revenue efficiency permanent? The paper tries to answer this question by interacting a “bad times” dummy variable with the output gap. In other estimates, the paper tests whether changes in tax revenue efficiency during the business cycle are more pronounced in developing than in advanced economies by interacting an advanced economy dummy variable with the output gap.

In the case of the VAT, the paper finds that a 1 percentage point increase in the output gap corresponds to a 1¼ percentage point increase in the efficiency of this tax. These results are consistent for quarterly and annual data, across advanced and developing economies, and in both good and bad times (as defined above).

Next, the paper introduces to the model above additional explanatory variables, which may affect tax revenue efficiency and provide explicit channels through which the output gap variable has an impact on tax revenue efficiency. The first such variable, the share of necessity goods in total consumption, is a proxy for shifts in consumption patterns. As incomes decline, the share in the total consumption of necessity goods—usually zero-rated or taxed at lower rates than the standard rate—increases, while the share of luxury goods decreases. Another variable, the ability to control tax

“A key implication of this research is that—particularly during major economic booms and sharp economic downturns—policymakers should be encouraged to look beyond long-run revenue elasticities and incorporate into their analysis the effects of the economic cycle on tax revenue efficiency.”

evasion, is a proxy for tax compliance. During downturns, compliance may suffer as, for example, credit-constrained and financially distressed taxpayers fail to pay taxes fully. The paper also tests for possible determinants of tax evasion, such as the legal system and its observance, and the level of the tax burden.

The paper finds that a worsening (improvement) in the VAT efficiency is driven by shifts in consumption patterns toward goods and services with lower (higher) VAT rates and increases (decreases) in tax evasion during contractions (expansions). Indeed, shifts in consumption patterns and tax evasion appear to be the main channels through which the output gap has an impact on the efficiency of the VAT. A closer examination of the determinants of tax evasion reveals that the VAT efficiency is positively correlated with stronger institutional underpinnings of the revenue administration, and negatively correlated with the overall tax burden in the economy.

Finally, the paper explicitly estimates tax revenue elasticities by moving the left-hand side variables in the denominator of the tax revenue efficiency ratio (i.e., the tax base and the standard tax rate) to the right-hand side. While the tax revenue response to the business cycle is presented in a simple conceptual manner in the models above, many practitioners use tax revenue elasticities for revenue forecasting.

In the case of the VAT, the paper finds that a 1 percentage point increase in the output gap corresponds to a 1¼ percent increase in VAT collections.

While the paper's main focus is on the VAT, it also examines the behavior of the efficiency of the personal income tax (PIT) and social security contributions (SSC). Measuring the efficiency of the PIT and SSC is significantly more challenging given that data for their base (wages and salaries) are not readily available (especially for developing economies); those tax handles usually have multiple tax brackets; and the presence of zero-rating and basic allowances imply different unweighted average tax rates (even though they may lead to the same level of tax collection). Estimation results for the EU countries, however, show that PIT and SSC efficiency are positively correlated with the output gap.

A key implication of this research is that—particularly during major economic booms and sharp economic downturns—policymakers should be encouraged to look beyond long-run revenue elasticities and incorporate into their analysis the effects of the economic cycle on tax revenue efficiency. Improvements in revenue forecasting would help governments have a better understanding of the likely evolution of fiscal balances and financing needs during the business cycle, thereby minimizing the potential need for abrupt corrective measures.

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IMF Economic Review

Volume 58 Number 2

Introduction: Economic Linkages, Spillovers, and the Financial Crisis—1

Pierre-Olivier Gourinchas and
M. Ayhan Kose

The Collapse of International Trade during the 2008–09 Crisis: In Search of the Smoking Gun

Andrei A. Levchenko, Logan T. Lewis, and
Linda L. Tesar

The Great Trade Collapse of 2008–09: An Inventory Adjustment?

George Alessandria, Joseph P. Kaboski, and
Virgiliu Midrigan

Demand Spillovers and the Collapse of Trade in the Global Recession

Rudolfs Bems, Robert C. Johnson, and
Kei-Mu Yi

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Banking Crisis Resolution: Was this Time Different?*(continued from page 1)*

With the recovery from this crisis under way, questions about its causes, consequences, and resolution naturally arise.

The underlying causes of the recent crisis are still being debated, though there appears to be broad agreement that financial innovation in the form of asset securitization, government policies to increase home ownership, global imbalances, and lax monetary policy were all contributing factors to the buildup of vulnerabilities and the unfolding of the crisis (De Nicoló and others, 2010; Keys and others, 2010; Obstfeld and Rogoff, 2009; and Taylor, 2009).

A number of papers have documented stylized facts about banking crises. Caprio and others (2005) present a database on systemic and nonsystemic banking distress episodes, focusing on the costs of the crises; Duttgupta and Cashin (2008) analyze factors that generally precede a banking crisis; Laeven and Valencia (2008) improve upon existing data by adding detailed information on policy responses during systemic banking crises; and Reinhart and Rogoff (2009) present an analysis of the stages of financial crises (banking, currency, and sovereign) with data going back to the 1800s. Laeven and Valencia (2010) present new and comprehensive data on the starting dates and characteristics of systemic banking crises over the period from 1970–2009, including detailed information on policy interventions. An uncontroversial definition of a systemic banking crisis is a situation where a large fraction of banking system capital has been depleted (Caprio and others, 2005; Laeven and Valencia, 2008; and Reinhart and Rogoff, 2009). However, implementing this definition implies relying on qualitative information, given the difficulty in measuring economic losses. Laeven and Valencia (2010) propose a crisis definition based on the range and scale of policy interventions that improves upon this qualitative strategy.

Laeven and Valencia (2010)'s definition requires the fulfillment of two conditions: significant signs of financial distress in the banking system (i.e., significant bank runs, losses, and liquidations) and significant banking policy intervention measures in response to losses in the banking system, where the last component is satisfied when at least three of six conditions are met: significant liquidity support, guarantees on bank liabilities, asset purchases, nationalizations, restructuring costs, and deposit freezes and bank holidays (see Laeven and Valencia, 2010, for definitions). The year that both criteria are met marks the beginning of a systemic banking crisis.

Based on this definition, 13 countries experienced a systemic banking crisis during 2007–09: Austria, Belgium, Denmark, Germany, Iceland, Ireland, Latvia, Luxembourg, Mongolia, the Netherlands, Ukraine, United Kingdom, and the United States. Ten additional countries are listed as borderline cases, representing episodes where the definition is almost met: France, Greece, Hungary, Kazakhstan, Portugal, Russia, Slovenia, Spain, Sweden, and Switzerland. Several other countries also announced policy packages in response to the crisis, but usage of those packages was small or policy actions were not significant enough to meet the criteria. Some of the borderline cases (notably Greece) have since taken systemic proportions.

Containing and Resolving Banking Crises: Past and Present

Using the database collected by Laeven and Valencia (2010), one can compare the policy responses and costs between the current crisis and past banking crises. A first difference between the current crisis and previous ones is the predominance of high-income countries, while past crises affected mainly emerging and low-income economies. The large international networks and cross-border exposures of financial institutions in high-income countries helped propagate the crisis to other countries. Failure of any of these large financial institutions could have resulted in the failure of other systemically important institutions, either directly by imposing large losses through counterparty exposures or indirectly by causing a panic and bank runs. This prompted large-scale government interventions in the financial sector, including preemptive measures in some countries.

The policy responses during 2007–09 were qualitatively similar to those in the past. First, liquidity pressures were contained through liquidity support and guarantees on bank liabilities, and often were followed by the announcement of recapitalization packages. Quantitatively, however, liquidity support was notably lower this time around, while overall monetary expansion was substantially larger. For the current crisis, the median of liquidity support reached 5.5 percent, while the historical median is about 10 percent of deposits and foreign liabilities in the system. Lower liquidity support can in part be explained by larger financial systems this time around. Monetary expansion has been six times the median in previous crises of 1 percent—measured as the change in the ratio of the money base to GDP. The concentration of past crises among emerging and low-income countries, generally with less space to expand monetary policy without the concern of a currency crisis, explains this finding. (Jacome

(2008) presents stylized facts showing a correlation between monetary expansion and currency crises in Latin America.)

We have no records of the use of bank holidays during the recent wave of crises, while a deposit freeze was used only in the case of Latvia for deposits in Parex Bank. All resolution policies used in the current crisis (notably bank recapitalizations) were also used in past crises, although they were put in place quicker in the recent crisis. The median difference between the time it took to implement public recapitalization programs and the time that liquidity support became extensive (that is, when liquidity support exceeded 5 percent) is no months for the recent crisis compared to 12 months for past crises.

What Is the Damage?

The economic cost of the recent crisis is on average much larger than that of past crises, both in terms of output losses and increases in public debt. The median output loss for the current crisis is 25 percent, exceeding the historical median by about 5 percent. Similarly, we estimate the median increase in public debt for the recent crisis at 24 percent, while the historical median is 16 percent. Direct fiscal costs to support the financial sector (such as those arising from recapitalizations) were smaller this time at 5 percent of GDP, compared to 10 percent for past crises. These differences in part reflect differences in the size of the initial shock to the financial system, an increase in the size of financial systems over time, and the fact that the recent crisis was concentrated in high-income countries, with better financing options to expand fiscal policy and allow automatic stabilizers to operate. The capacity to conduct expansionary monetary policy, combined with relatively swift policy action regarding bank recapitalization, the widespread use of guarantees on liabilities, and asset purchases that helped sustain asset prices, allowed countries to keep direct outlays in support to the financial sector relatively low. Of course, the crisis is not over yet, and the final tab will have to be recomputed in the years ahead.

An additional consequence of the crisis has been a reorganization of the world financial map, with large players becoming significantly smaller, allowing new players to gain importance. Countries with a systemic banking crisis in 2007–09 had dominated the banking arena in 2006, with a share of close to 60 percent of the total, of which two-thirds corresponded to U.S. banks. Today, however, U.S. banks' participation reaches only 21 percent and Australia, China, Brazil, and Sweden appear now on the top-30 list.

To summarize, we first find that, unlike past crises, the recent crisis was concentrated in advanced economies, in particular those with large financial systems. Second, the

speed of intervention was faster and the range of policy measures broader. Third, the costs of the recent crisis are higher in terms of output losses and increases in public debt, though direct fiscal costs associated with financial sector interventions are lower. The bias toward high-income countries during the recent crisis, with greater institutional quality, made possible a broader menu of policy options, including unconventional monetary policy, asset purchases and guarantees, and significant fiscal stimulus packages. These large-scale interventions, together with faster implementation of recapitalization programs, help explain the lower fiscal costs.

Notwithstanding the role of a large-scale policy intervention in avoiding a Great Depression, the burden of public debt and the size of government contingent liabilities increased substantially, raising concerns about fiscal sustainability in a number of countries. Moreover, the crisis is ongoing in several countries and its ultimate impact will have to be reassessed in the future.

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Seven Questions about Emerging Markets and the Financial Crisis

M. Ayhan Kose



Emerging market economies (EMEs) have become a dominant presence in the world economy over the past two decades. The global financial crisis, however, cast a pall over the notion that EMEs had become self-reliant and had insulated themselves from advanced country developments. Still,

the EMEs as a group have weathered the crisis better than the advanced economies. This article provides brief answers to seven commonly asked questions about the EMEs' experience during the crisis.¹

Question 1: What was the major debate about the EMEs before the global financial crisis?

The spectacular growth performance of EMEs in recent decades has attracted a lot of attention. The emerging markets' shares of world GDP, private consumption, investment, and trade nearly doubled in the space of less than two decades. Before the crisis, these changes prompted questions about the relevance of the conventional wisdom that these countries' fortunes were heavily dependent on the developments in advanced countries. The conventional wisdom came into question because emerging market growth continued to be strong despite relatively tepid growth in the advanced economies over 2003–07. A fierce debate began in 2006–07 over whether global business cycles were converging, or cycles in emerging markets had started to diverge from fluctuations in advanced-country business cycles. The divergence argument is of course directly linked to the issue of the resilience of EMEs, as it implies that those economies have become less vulnerable to external shocks emanating from the advanced economies.

Question 2: How did the financial crisis change the debate?

The global financial crisis changed the direction of this debate and cast a shadow over the ability of the EMEs to insulate themselves from shocks in advanced countries. In particular, the problems in the financial systems of advanced countries rapidly spread to a number of EMEs during the last

quarter of 2008 and the first half of 2009, disrupted their asset markets and stunted their short-term growth prospects. This was not altogether a surprising outcome, as past episodes of business cycles suggest that deep and highly synchronized recessions in advanced countries tend to have large spillovers to EMEs. Remarkably, however, most EMEs have bounced back briskly from the global recession since mid-2009, and as a group have weathered the crisis much better than the advanced economies. There is of course significant variation in the degree of resilience displayed by different groups of emerging markets. Nevertheless, the core fundamentals of the EMEs suggest that most of these countries have the potential to generate sustained high growth over the long term, so the shift in the locus of global growth from the advanced economies to the EMEs is likely to persist. These developments call for a deeper analysis of the implications of shifts in the global economic structure.

Question 3: How did the EMEs perform during the global financial crisis?

Although EMEs, as a group, performed well during the global recession, there were sharp differences across emerging economies in different regions. The economies of emerging Asia had the most favorable outcome, with relatively modest declines in growth rates. China and India, which are the two largest economies in emerging Asia and which maintained strong growth during the crisis, obviously played an important role in this result. Excluding these two countries and Hong Kong SAR from the emerging Asia group leaves that group with a less impressive performance overall. Emerging Europe had the sharpest fall in total output during 2009, followed by Latin America.

By contrast, and somewhat surprisingly, the economies of the Middle East and North Africa, as well as those of sub-Saharan Africa, weathered the crisis better, with only small declines in output. The relatively modest exposure of these two groups to trade and financial flows from advanced economies may have limited the extent of spillovers from the global shock. Latin America, by contrast, is more closely integrated with advanced economies, especially the United States. Although Latin American EMEs suffered growth contractions during the crisis, they bounced back relatively strongly. This is in contrast to previous episodes of global financial

¹Based on [Emerging Markets: Resilience and Growth Amid Global Turmoil](#), by M. Ayhan Kose and Eswar S. Prasad, published by Brookings Institution Press in November 2010.

turbulence, when Latin American economies proved to be vulnerable to currency and debt crises.

Question 4: What are the major factors explaining the resilience of the EMEs?

Many factors account for the relative resilience of emerging markets, as a group, during the global financial crisis. Some relate to policy choices made by these countries, while others are associated with underlying structural changes in their economies. These factors also help explain differences in degrees of resilience across different groups of EMEs.

First, the EMEs have become less dependent on foreign finance and have been able to reduce the share of external debt denominated in foreign currency. This has reduced their vulnerability to swings in capital flows. As a group, emerging economies have been net exporters of capital during the past decade. Asian emerging markets, especially China, have run significant current account surpluses in recent years. There are of course other emerging economies, especially those in Europe, which were running large current account deficits before the crisis.

Second, the EMEs came to the crisis with large buffers of foreign exchange reserves, which provided insurance against sudden reversals in investor sentiment. Of course, the benefits of large reserve stocks have to be considered relative to the costs of accumulating them, both in terms of the quasi-fiscal costs and the more subtle costs of constraints on domestic policies.

Third, greater trade linkages among EMEs have increased their resilience as a group. In particular, commodity-exporting countries have been shielded to some extent from slowdowns in advanced economies by strong growth in the EMEs.

Fourth, emerging markets have become more diversified in their production and export patterns, although this has, to a significant extent, been offset by vertical specialization, particularly in Asia, through regional supply chains. Even though diversification offers limited protection against large global shocks, as long as the effects of shocks are not perfectly correlated across countries (export markets), diversification can promote resilience in response to normal shocks.

Fifth, there has been a divergence of EMEs' business cycles from those of advanced economies. This divergence has happened because of the factors noted above, in addition to greater intragroup trade and financial linkages.

Sixth, during the era of Great Moderation (1985–2007), most EMEs succeeded in bringing inflation under control through a combination of more disciplined fiscal policies and more credible monetary policies. Indeed, a large number of EMEs have now adopted some form of inflation targeting—either explicit or implicit, soft or hard—along with flexible

exchange rates, which act as shock absorbers for external shocks. This has led to moderate and less volatile inflation. In turn, stable macroeconomic policies have facilitated a shift toward more stable forms of financial inflows and also made international investors less concerned about the safety of their investments in emerging markets.

Finally, rising per capita income and a burgeoning middle class have increased the size and absorptive capacity of domestic markets, making EMEs potentially less reliant on foreign trade to benefit from scale economies in their production structures and also less susceptible to export collapses.

Question 5: Why did some EMEs do reasonably well while others suffered during the crisis?

The factors discussed above are brought into sharper relief when one examines more closely the experiences of two sets of EMEs between which there is a clear contrast in terms of resilience to the global financial crisis. Before the crisis, average per capita GDP growth was highest in emerging markets in Asia and Europe. But since then these two groups' fortunes have diverged. While Asian emerging markets, particularly China and India, have been among the most resilient during the crisis, some economies of emerging Europe were the hardest hit.

Emerging Asia was relatively insulated from the effects of the financial crisis for three possible reasons. First, its financial markets are relatively insulated, especially in their limited dependence on foreign bank financing, which narrowed the channels for financial contagion and also kept trade finance from collapsing. Second, the region's high and rising saving rates have more than kept pace with rising investment rates, leading to current account surpluses and growing stocks of foreign exchange reserves, thereby insulating the region as a whole from the effects of a sudden stop in capital flows from advanced economies. Third, prudent macroeconomic policies practiced by a number of these countries allowed the fiscal flexibility to respond aggressively to the spillover effects of the crisis.

By contrast, emerging Europe was particularly vulnerable to the aftershocks of the crisis. It had a high level of dependence on external finance, as reflected in large current account deficits; significant exposure to foreign banks, which had many benefits but also served as a transmission channel for the crisis; and rapid credit expansion in the years before the crisis, which was difficult to sustain after foreign bank financing dried up.

Question 6: What policy lessons should the EMEs take from their experience during the crisis?

The experience from the crisis brings lessons for three interconnected categories of policy—macroeconomic, structural,

Seven Questions about Emerging Markets and the Financial Crisis *(continued from page 7)*

and financial policies. First, during good times, policymakers should work to create more room for macroeconomic policy responses to adverse shocks. EMEs that had lower levels of public debt (as ratios to GDP) had more room for aggressive countercyclical fiscal policy responses to the global financial crisis and less concern about worsening their debt service obligations. As this crisis has shown, coordinated and preemptive domestic macroeconomic policies can substantially dampen the effects of major shocks. A well-functioning financial system can enhance the transmission of monetary policy and add to its potency as a countercyclical tool, so financial market development and reforms are an important priority in most EMEs. Although some EMEs seem to have benefited—in terms of not being hit hard by the crisis—from having underdeveloped financial markets, this has potentially adverse long-term implications for growth as well as distribution.

Second, it is tempting for EMEs to increase self-insurance through reserve accumulation. This strategy certainly seems to have helped stave off the worst of the crisis for many EMEs, but it comes at a significant cost in terms of the policy distortions needed to accumulate reserves.

Third, a growth strategy that is well balanced in terms of domestic and external demand can lead to more stable outcomes. Reliance on external demand creates vulnerability to demand shocks originating in trade partners.

Fourth, EMEs can derive significant benefits from openness to foreign capital, but should be cautious about dependence on certain forms of capital, particularly short-term external debt. Dependence on foreign finance exposes a country to sudden stops or reversals of capital inflows. There is evidence that short-term external debt is a particularly risky form of inflow, but the experiences of some economies in emerging Europe indicate that even relatively stable forms of inflow such as foreign direct investment can turn volatile at a time of global financial turmoil. Robust public sector and corporate governance as well as deep and well-regulated financial markets seem to tilt capital inflows toward more stable forms and also help countries cope better with the volatility of capital flows.

As a more general point, EMEs should maintain effective financial market regulation and rapidly counteract credit booms that can turn into busts, especially if these booms are fueled by foreign capital inflows and if the associated busts can be compounded by spillover effects of external shocks. As financial markets in EMEs become increasingly sophisticated and complex, it is important to have in place the regulatory capacity and nimble regulatory frameworks to keep up.

Question 7: What are the implications of the changes in EMEs for advanced countries?

Advanced economies should adapt to the rising prominence of emerging markets. There are a number of implications of the changes in EMEs for advanced countries, but it is useful to focus on the three most relevant ones here. First, although some EMEs have per capita incomes well below those of the advanced countries, the growing size of EMEs and their rapidly rising per capita incomes are expanding the size of their domestic markets, making them less reliant on demand in advanced economies. Since the EMEs have high saving rates, they are also becoming less dependent on foreign finance, especially from advanced economies. This gradual process of structural divergence of EME business cycles from advanced economy business cycles, along with the strong growth potential of the former group, suggests that advanced economies should be looking to expand trade relationships with the EMEs in order to diversify their export base and benefit from the growth potential of EMEs.

Second, advanced economies should consider ways to promote greater financial integration with EMEs, particularly by creating more channels for two-way private capital flows that could be mutually beneficial. Given that EMEs have strong growth potential and can provide good opportunities for investors from advanced economies to diversify risks, there are good reasons to create stronger financial links with these economies, especially those with deep and stable financial markets. However, this does create some potential risks that will need to be managed, as discussed below.

Cross-border bank exposure needs to be monitored carefully so regulators and central banks can take action to counter the spread of financial shocks through this channel. This proved to be a channel through which financial systems in some advanced European Union economies were vulnerable to growth collapses in emerging Europe. Better coordination across national regulators in the supervision and regulation of large multinational banks has also become a priority.

Third, there is a strong need among advanced economies for more disciplined macroeconomic policies—especially sustainable and prudent fiscal policy, but also structural policies, including labor market flexibility and sound financial markets—so they can work as shock absorbers in response to both domestic and external shocks, including those originating in EMEs. Rising global integration will increase vulnerability to external shocks, including those emanating from EMEs, making this an important priority. In addition, given the degree of openness to trade among advanced economies, it is in their best interest to promote a more stable and transparent global trade regime.

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