

Draft

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The International Financial Crisis and Eastern Europe: What is the IMF role?

Patrick Conway
Department of Economics
University of North Carolina at Chapel Hill
Patrick_Conway@unc.edu
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Abstract

In this paper I examine the onset of the international financial crisis and its implications for the EU and Eastern Europe. I outline the various explanations given for the beginning of the crisis, and the channels by which the crisis in the US and EU-15 was transmitted to Eastern Europe. While both trade and financial channels are potentially important, I argue that the financial channel is critical for understanding the differentiation in experience across Eastern Europe in response to the crisis.

As recently as 2007, the relevance of the International Monetary Fund (IMF) to global finance was questioned. Today, its influence is evident in both developed- and developing-country settings as world leaders respond to a global economic crisis. I consider the IMF's role in this crisis in three dimensions: forecasting the crisis, acting as lender of last resort, and providing expertise in designing and supervising macroeconomic reforms. Evidence suggest that its skill in forecasting is no greater than other agencies, but that its "lender of last resort" and reform expertise have been its comparative advantage in this crisis period.

On 23 September 2007, Dominique Strauss-Kahn was named the Managing Director of the International Monetary Fund (IMF). In his speech on that day, he summarized the challenges facing the IMF as follows: “relevance and legitimacy”.¹ Eighteen months later, the Group of 20 meeting of April 2009 voted to triple IMF lending capacity and authorized a substantial expansion in the stock of special drawing rights in circulation.² The IMF has gone in short order from a supernumerary role to a central place on the world stage. What brought about this shift?

In the first section I describe the causes and effects of the international financial crisis, with special attention to the impact in Europe. In the second section I turn to the IMF, both as it began in the 1940s and as it evolved, especially in response to criticism in the last decade. In the third section I analyze the shift of the IMF to center stage in this crisis. Is it due to a greater ability to anticipate the crisis and its effects? Is it due to its facility in lending cum conditionality? Or is it simply a manifestation of a “lender of last resort” function – when other financial intermediaries are reluctant to lend, the IMF once again becomes relevant? In the fourth section I conclude that based on the evidence of the last few years the IMF’s ability to forecast the effects of financial crisis does not cause it to stand apart. Its central role seems rather to stem from (a) a global desire to re-establish a lender of last resort for the crisis and (b) a perceived need on the part of creditors for the IMF’s traditional lending-cum-conditionality product.

1. What is the international financial crisis?

By the “international financial crisis” I refer to the economic crisis that affected advanced economies first and foremost beginning in 2008, and then spread to emerging and developing economies through both trade and financial channels. As Table 1 illustrates, output growth in the advanced economies began its collapse earlier and became more recessionary than in most emerging and developing economies. Among the emerging and developing economies, those countries with closest economic links to Europe and the US were on average more strongly affected (Eastern Europe and CIS for Europe, Western Hemisphere for the US). In early 2010, the World Economic Outlook (2010, p. 6) predicted a “multi-speed” recovery over the next few years – IMF shorthand for rapid growth among emerging and developing markets coupled with an anemic recovery in the advanced economies.

A. What caused the crisis?

There is widespread agreement that the trigger for the crisis was the downturn in housing values in US real estate markets in the mid- to late-2000s. The controversy begins with the possible explanations for why such a relatively minor event should cause a global recession on the scale represented in Table 1. The suspected causes have been summarized elsewhere (e.g., Conway 2010), and are simply mentioned here.

- **Psychological factors.** In this view, the crisis stemmed from a lack of appreciation among market participants of the riskiness of the financial instruments.
- **“Overleverage” of financial institutions.** As Dooley (2010) quite cogently puts it, financial institutions have an economic incentive to “lever” their equity – to undertake borrowing valued at many multiples of their equity in order to purchase assets that promise payoffs in excess of the cost of borrowing. The overleveraged financial structure led to an augmentation of the crisis and cascading effects through the network of interbank borrowing.

- **Lax regulation and supervision.** Government regulation and supervision of the banking sector had become less stringent in the US. Regulators at the Federal Reserve System, Federal Deposit Insurance Corporation and Securities and Exchange Commission had adopted a *laissez faire* approach to financial activities that did not directly concern the deposit-taking from the population.

At its base, this international financial crisis is similar to those that came before in that it was rooted in a speculative bubble. Kindleberger (2000) was an early expositor of this behavior, and documented that speculation will lead to a rapid run-up in price followed by a crash. In the current instance the bubble is found in the US real-estate market. While the speculators believed that their purchase of credit default swaps had hedged their risks, the failure of AIG, the major issuer of these swaps, appeared to return the risk to the speculators.

B. What propagated the crisis across borders?

The rapid propagation from the US to other economies can be attributed to three features of the behavior of financial institutions in advanced economies.

- Collateralized debt obligations provided an opportunity for speculators throughout the world to participate in the bubble. These assets lost value as the US crisis intensified, causing commercial banks in advanced countries to reduce their liabilities in synchronized fashion.
- The expansion of bank balance sheets throughout the world was disproportionately financed through issuance of USD-denominated short-term liabilities. When the crisis began, all commercial banks had difficulty in “rolling over” these liabilities.
- Kamin and De Marco (2010) attribute the majority of the propagation effect across borders to what they call “indirect contagion”. In their view, financial actors throughout the advanced economies observed the US experience. They also observed that banks in other countries had adopted a similar, highly leveraged, business model. This observation triggered a synchronized “run” on the banks in advanced economies.

As a result of these propagation channels, the financial crisis in each country took similar form. There was (1) a subset of financial institutions that became insolvent due to their bets on these collateralized debt obligations, (2) a large percentage of financial institutions that faced a shortage of liquidity (short-term borrowing) in the aftermath of the crisis, and (3) a majority of commercial borrowers in the advanced economies that found that short-term borrowing was either very costly or impossible.

C. What was the impact on emerging and developing countries?

As noted in Table 1, the impact of the crisis on emerging and developing countries varied substantially among regions. This was due to the dual channels for transmission to these countries. While it was not common for emerging-economy financial institutions to hold the speculative collateralized debt obligations, some emerging economies faced substantial financial shock due to the

crisis. In addition, the reduction of growth in the US, Japan and Europe led to a reduction in demand for emerging- and developing-economy exports.

Those emerging economies that shared most completely in the financial crisis were those in which multinational banks had become dominant and less regulated. Dooley (2010) remarks that the Asian countries were largely spared the financial shock because they continued the close supervision of their home financial sectors begun in the aftermath of the Asian crisis. Financial institutions there were not allowed to become overleveraged or to follow the “risky business” model of the advanced-economy financial institutions, and so were largely insulated from the financial shock.

The emerging and developing economies that dodged the financial shock did not escape unscathed from the crisis. In the large study by te Velde (2010) for the Overseas Development Institute, reporters from developing and emerging economies around the world reported a list of negative effects of the crisis on their economies through changing advanced-economy behavior:

- Reduction in portfolio investment flows (due to the flight to safe havens);
- Reduction in direct foreign investment in emerging and developing economies (due to the economic downturn);
- Reduction in remittances (due to the economic downturn);
- Reduction in exports of tradable goods and services to the advanced economies.

D. What worked best to insulate economies from the financial crisis?

Countries with strict supervision, whether advanced (Canada) or emerging (China), escaped the worst of the financial shock. This supervision discouraged the speculation in collateralized debt obligations, but also discouraged the overleverage that amplified the crisis in other countries. Åslund (2009) and Berkmen et al. (2009) also identify the exchange-rate regime as a critical factor. Countries with “inflation targeting” monetary policies performed significantly better in response to the financial shock than those with “exchange-rate targeting” policies: “inflation targeting” requires a flexible exchange rate.

Emerging economies had accumulated large stocks of foreign-exchange reserves prior to the crisis as a form of self-insurance against international shocks. Dooley (2010) concludes, though, that these reserves were not very effective by themselves in insulating an economy. Borrowed reserves, as in the precautionary lending and flexible credit line from the IMF, were not effective in that regard either. No matter how large they seemed *ex ante*, they were generally insufficient post-crisis to replace for long the evaporated streams of commercial credit.

2. What does the IMF do?

The Articles of Agreement of the International Monetary Fund define two responsibilities for that organization. First, the IMF extends short-term credit to countries with balance-of-payments deficits, “conditional on the country’s commitment to implement economic policies that will restore equilibrium.”³ Second, the IMF conducts periodic consultations with member governments about their exchange-rate

arrangement and external balance, and provides advice as appropriate on macroeconomic and exchange-rate policy reforms.

As Kenen (1986) notes, the IMF was first envisioned as a type of international credit union: countries subject to adverse external shock would approach it for credit; there would be no distinction between creditor and borrower country, since each member would be both at different times. It has, of course, evolved into a different group activity, with a large number of recidivist borrowers and a smaller number of advanced economies that rarely or never use the credit facility.⁴ Kenen concludes that by 1986 it was operating more like a bank than a credit union, intermediating funds from creditor-members to borrower-members.

Tirole (2002) advanced a more complex view of the IMF's role. While its form may be similar to a stand-alone bank, its unique contribution to the international financial market stems from its ability to complete an incomplete contract between private lenders and borrowers. Tirole characterizes the contract between the private lender (e.g., Deutsche Bank) and the private borrower (e.g., Latvia's electricity corporation) as subject to dual agency.⁵ The private lender enters a contract with the private borrower, but recognizes that the ability of the borrower to repay will depend critically upon the actions of the sovereign government (e.g., the government of Latvia). IMF programs with the sovereign government "complete" the contract and encourage private lending.⁶ As Jeanne et al. (2008) put it, the IMF is more effective than uncoordinated private investors in eliciting policy adjustments from crisis countries. It has its own technology associated with lending that creates a commitment device for government adjustment. This "conditionality" is welfare-improving in the absence of moral hazard. Moral hazard (less than optimal government adjustment *ex ante* because of the understanding that the IMF will be there to assist during crises) can lead to welfare reduction.⁷ This highlights the importance of "*ex ante*" conditionality.

If it is a bank, it is a bank with a decided disadvantage until very recently in attracting customers. The IMF practice of attaching conditionality to its credit, while enshrined in the Articles of Agreement, has traditionally been a very unpopular feature of its lending.⁸ There have been periods in which IMF lending was in heavy demand, including the period after the dissolution of the Soviet Union and the period subsequent to the Asian financial crisis. However, as Figure 1 indicates, by the beginning of 2008 the use of its credit was at a recent low.

In the aftermath of the Asian Crisis of 1997 and the Russian Crisis of 1998 there was a loud and concerted objection to the IMF's implementation of its crisis lending program. Many informed observers (e.g., Sachs (1997), Feldstein (1998), IFIAC (2000), Stiglitz (2002)) attributed the slow recovery from the crisis to the IMF's behavior. The critique was targeted at both tactical and strategic choices of the IMF.

- On the tactical front, Sachs, Feldstein and Stiglitz criticized the conditionality that the IMF attached to its lending to crisis countries in Asia. While they differed in particulars, they agreed that the IMF's insistence on widespread financial-sector reform as condition for lending was inappropriate. Sachs (1997) viewed the crisis as analogous to a "run on the bank". The IMF's insistence upon market-reform conditions in this context just deepens the loss of confidence that caused the "bank run" while causing the country to undertake unnecessary and costly policy changes. Feldstein (1998) argued that the IMF recommended austerity measures inconsistent with the Asian countries' economic needs just because that is the customary policy reform.

Stiglitz (2002) echoed these criticisms, adding that the IMF insistence on contractionary monetary policy during the crisis was counterproductive.

- On the strategic front, Feldstein (1998) and International Financial Institutions Advisory Commission Report (IFIAC, 2000) argued that IMF-supported programs by their nature bail out unwise private lenders and create moral hazard in international lending. IFIAC, also known as the Meltzer Commission, called for the IMF to cease lending except to emerging economies having met specific economic and financial pre-conditions.

These criticisms led to substantive reforms at the IMF in lending and in surveillance. In the early 2000s, the IMF came up with new guidelines for program (now known as *ex post*) conditionality. One of the hallmarks of the new approach was to be “country ownership” of the program, as outlined in IMF (2001) and Boughton (2006). Another was to be greater flexibility, with less stress on meeting quarterly targets before tranche disbursements can occur (IMF (2002)). The IMF also introduced the Contingent Credit Line (CCL) in 1999: a precautionary line of defense for members with sound policies but vulnerable to contagion effects from capital account crises in other countries (IMF (2004)). Under the facility, an IMF member that met the eligibility criteria (now known as *ex ante* conditionality) could draw on a large pre-specified amount of resources if hit by a financial crisis due to factors outside of the member's control. This was a direct response to the IFIAC recommendation, but in its five-year existence no country chose to complete the necessary pre-certification. The IMF established an internal Vulnerability Exercise for Emerging Market Economies (VEE) in 2001 to focus the surveillance efforts of Fund staff on weaknesses in sectoral fundamentals.

3. The IMF Role in the International Financial Crisis.

A. What was the IMF’s role in causing the crisis?

There is no direct connection between the IMF and the collapse of the sub-prime housing market in the US. While the IMF has been accused in the past with creating an environment in which international lending to developing countries is excessive and in which developing-country governments take insufficient steps to address systemic economic problems (two aspects of moral hazard; see Conway (2006)), this crisis erupted in parts of the international economy in which an IMF “guarantee” carries no weight.

To the extent that Bernanke’s (2005) “savings glut” explanation is accepted as a cause of the financial crisis, it is inappropriate to treat the IMF as an intermediary for that saving. As is evident from Figure 1, the IMF’s role in international lending was declining during the period that Bernanke identifies with the “savings glut”.

B. Did the IMF see the US financial crisis coming?

Yes, and no. It saw a US-driven crisis as a possibility, but not this one. The US has annual Article IV consultations with the US government about international financial issues, just as it does with all its members. In 2005, for example (IMF (2005)), the key advice from the IMF concerned global imbalances, and specifically means to raise US saving and reduce the US current account deficit. The IMF found itself in broad agreement with the US monetary policy of the time. By 2008, as Faruquee (2008) reports, the IMF recognized that the financial crisis would cause economic slowdowns in the US

and Europe – and saw that as good news in part because it reduced global imbalances. Blanchard (2008), currently chief economist of the IMF, had a similar focus on the threat of global imbalances.

The IMF’s projections of the impact of the crisis in the US and Europe are in retrospect very similar to those of government agencies. Figures 2a and 2b indicate the consensus forecasts of real economic growth in the US by the IMF and the Federal Reserve’s Federal Open Market Committee, respectively.⁹ While the IMF projections appear closer to target for 2008 and 2009, this is possibly due to different calculations of growth rates by the two agencies.¹⁰ Neither agency anticipated the magnitude of the drop in 2009 growth prior to 2009.

C. IMF lending activity since the crisis began: International lender of last resort?

Bagehot (1873) provides the definition of “lender of last resort”: one with responsibility for accommodating demands for high-powered money in times of crisis at penalty interest rates to “solvent but illiquid” banks. In the international context, I follow Tirole (2002) in describing it as an institution that provides short-term liquidity to a country when commercial lenders no longer want to supply funds. Tirole doesn’t see the need for the IMF to play this role; as he says (Tirole, 2002, pp. 111), “the case for a LOLR is weaker than in the case of domestic liquidity because there is plenty of international liquidity to go around... The limit is not [their] overall availability, but [their] availability to a country with limited international collateral.”

Since the beginning of the current financial crisis, the IMF has moved swiftly to expand its lending. The IMF created a successor to the CCL. The Flexible Credit Line (FCL) was established in March 2009, requiring ex ante conditionality and providing unrestricted access to large amounts of credit (up to 10 times quota in some cases). Mexico, Poland and Colombia have already been approved for these lines of credit, with unrestricted access to \$82 billion in total. The Group of 20 (G-20) meeting of 2 April 2009 voted to triple the IMF lending capacity in the current crisis, from roughly \$250 billion to \$750 billion, through an expansion of the IMF’s existing Arrangements to Borrow.¹¹ The G-20 also supported the issuance of a new allocation of special drawing rights valued at \$250 billion to increase liquidity in the world economy.

As Figure 1 illustrates, the IMF’s lending activity has expanded substantially from its low at the beginning of 2008. Table 2 lists the total value of lending programs in place as of 30 April 2010. Note that the programs in the left-hand column (Stand-by, Extended and Flexible Credit Line facilities) were all arranged after the beginning of the financial crisis.

The programs in the right-hand column are for the most part lending to least-developed countries through the Poverty Reduction and Growth Facility (PRGF), and represent only about 3 percent of total IMF commitments at this time.¹² Presbitero and Zazzaro (2010) document this underservice of least-developed countries; they also conclude that the IMF lending that has been done during this crisis is skewed towards countries that share political position with the largest funders of the IMF. Table 3 illustrates the dynamics of approval of IMF-supported programs in the period 2007-2010. As is evident from 2007, IMF-supported programs were predominantly of two types prior to the crisis: PRGF lending and “precautionary” programs – that is, those agreed upon with the express desire not to draw them down unless circumstances for the borrower deteriorated sufficiently to require it. Among the programs approved in 2008-2010, these two types of lending continue, but are joined by lending to

countries – often European countries – in financial crisis. Those in this latter category are indicated in bold. As is evident in the amounts approved, the lending to crisis countries is many orders of magnitude larger than the PRGF and precautionary lending to Central American countries.

The “crisis” lending is truly lending of last resort. I believe that Tirole was correct, but that he did not anticipate the speed with which the definition of “international collateral” could change with the financial crisis. The crisis centered in the financial sector forced financial intermediaries to retrench and to restrict their lending. This has triggered “sudden stops” for many emerging economies – countries with sufficient international collateral to borrow pre-crisis found themselves with no takers when they attempted to float new obligations to roll over their earlier debts.¹³ For these countries, the IMF credit is lending of last resort designed to lessen the impact of the sudden stop on the emerging economy.

4. Why is there such dispersion in Eastern European countries’ performance?

The financial crisis in the US and Europe has had quite differentiated impact in the countries of Eastern Europe.¹⁴ When the real annual growth rate by country is considered for the year 2009 over 2008, there is great variation in country experience. The Euro Area at -4.1 percent was a poor outcome, but Latvia, Ukraine and Lithuania had negative growth rates of over 15 percent. Poland joins Azerbaijan, Kosovo, Albania and (barely) Belarus with positive growth rates. If these countries were all tightly linked to the EU-15, we would not expect such differences – and such magnification of the negative impact of the crisis. Figure 3 illustrates the time path of the crisis for the Euro Area and selected Eastern European countries.¹⁵ The Euro Area growth path indicates the “sine wave” path from 2004 to the present: rising and then declining growth through 2009, with a slight upturn thereafter. The Iceland economy, provided as another comparison, illustrates the magnification effect due to what is in “old Europe” an egregious case of overleveraging. The magnification observed in Latvia and Ukraine is much greater, with higher growth in 2006 and 2007 followed by much larger contraction in 2009 and 2010. Trade linkages are unlikely to provide such magnification; the most likely outcome with trade linkages will be for the countries to follow the same growth “sine wave” as the Euro Area, but with only limited dispersion around that path. The large differentiation of country experience in Figures 2 and 3 points to a financial-market cause.

The share of foreign ownership in the banking sector was one of the major differences between Eastern Europe and the rest of the world during this period.¹⁶ While foreign participation was less than 50 percent in Latin America and less than 20 percent in Emerging Asia through the 2000s, it was 70 percent and rising in Emerging Europe. By the time that the crisis hit, nearly 90 percent of the financial-sector assets in Emerging Europe were foreign-owned. This had led to substantial on-lending by the subsidiaries in Eastern Europe. The growth of cross-border credits as reported by the Bank of International Settlements reflects this on-lending. From 2001, credits into the Euro Area followed a “boomerang” pattern: the value of credits increased 200 percent by June 2008. From that time on, the value of credits into the Euro Area did not grow further, but rather declined slightly. Iceland experienced a classic financial bubble; when compared to 2001 values, growth of credits into Iceland were roughly 13 times higher by June 2008, falling to 4 times higher by March 2010. The Icelandic bubble pales, however, when compared to the experience of Ukraine and Latvia: once again compared to 2001, there was growth at the height of the bubble of 39 and 26 times, respectively, with a large portion of that given

back in the aftermath. Poland, by contrast, observed only a slight financial bubble in cross-border lending.

Rapid growth leads to an imbalance of cross-border assets and liabilities. When European financial institutions faced the financial crisis, they reduced these cross-border flows and caused “sudden stops” in the Eastern European countries. The size of the flow reversal is likely proportional to the reduction in economic activity; that is a question that I will investigate in the future.

5. Does the IMF play a role in the size, or dispersion, of the crisis in Eastern Europe?

There are three questions to answer in this part. Does IMF support lead in some way to the dispersion in outcomes? Does IMF participation or advice heighten this dispersion? Does the IMF participation in the EU “bailout” cause additional hardship for Eastern Europe?

A. IMF as advisor. It’s too early to lay either blame or credit with the IMF, but here are a few observations that tend to reflect well on the IMF’s efforts.

- In comparing the list of countries with negative growth in Figure 2 with a list of countries taking up an IMF-supported program during the 2007-2009 period, those countries with largest negative growth effect have also participated in IMF-supported programs. Correlation does not represent causation here, as Conway (1991) pointed out – there is a selection bias in choosing to participate in an IMF-supported program that is analogous to the “Ashenfelter dip” in job-training evaluation studies by labor economists. IMF financing may be making adjustment to the crisis less costly in terms of unemployment and poverty in these countries.
- The IMF has in recent years been known as a proponent of fixed exchange-rate regimes. To the extent that its advice pushed individual countries to maintain a fixed exchange rate, this will have worsened the effect of the financial crisis for that country. The IMF has not been doctrinaire in this regard, however, as it has supported both “currency board” countries (Estonia and Bulgaria) as well as “inflation targeting” countries (such as Poland).
- As the world talks about a multi-speed recovery from the financial crisis, the countries with above-average growth rates include those from Asia for which the IMF insisted upon financial-sector conditionality in the Asian crisis. This conditionality was considered excessive at the time (e.g., Sachs (1997), Feldstein (1998)), but according to Dooley (2010) the increased supervision that resulted paid dividends during the current international crisis

B. IMF as forecaster. Did the IMF forecast the impact of the crisis? A definitive answer to this question requires more systematic research than I’ve completed to date. However, we can get a provisional response to this question from examining a specific case study. In this section I examine the case of Latvia. My null hypothesis is that the IMF’s forecast of the risk of transmission of the crisis to Latvia was not appreciably earlier than that drawn by rating agencies and private country risk evaluators.

Latvia experienced a number of years of rapid economic growth during the mid 2000s. This growth was in large part financed through a credit boom. The Latvian financial sector, dominated by

local subsidiaries of Scandinavian banks, intermediated the credit through its own borrowing from European commercial banks. Latvia participated in IMF-supported programs beginning in 1992, but by 2004 had no outstanding loans from the IMF.¹⁷ The Latvian government, just as for other member governments, conducted annual Article IV consultations with the IMF about macroeconomic performance. A review of published IMF documents prepared subsequent to IMF-Latvia consultations between 2004 and 2008 indicates growing concern by IMF staff about Latvia's credit boom, excessive growth and financial-sector vulnerability. By April 2007 the mission counseled an urgent and immediate contractionary demand-management policy. In December 2008 the IMF and the Republic of Latvia announced a Stand-by Arrangement.

IMF advice in the context of Article IV consultations can be taken or left by the host government. It does not have the force of conditionality if the host country is not negotiating an IMF-supported program. The advice given here does anticipate a crisis, but not necessarily due to the world financial crisis; it seems more a prediction of the adverse consequence of a Latvian speculative bubble than of the transmission of the shock from the international crisis.

This conclusion is reinforced by examination of IMF forecasts prepared bi-annually for the publication *World Economic Outlook* (WEO). Every six months IMF staff prepared a forecast for Latvia's real economic growth, and it is reasonable to believe that staff concerns about transmission of the international financial crisis will be reflected in these forecasts. In Figure 8a I summarize the forecasts provided in each successive edition of the publication between April 2007 and April 2010.¹⁸ As is evident, the forecasts in April 2007 and October 2007 predict only a small downturn in economic growth in 2008. In April 2008 the forecast is for lower but still positive growth in 2009-2011, while in October 2008 the forecast is for small reductions in real GDP during 2008 and 2009. It is only in April 2009 that the large negative growth rate, similar to what was actually observed, is predicted for 2009. A similar and slowly evolving realization of the possibility of crisis is evident in WEO forecasts for the current account of Latvia.

Did the private sector forecast the crisis in Latvia earlier than the IMF? When ratings by Standard and Poor's and Moody's for medium-term foreign-currency-denominated bonds issued by the government of Latvia are considered, we observe two risk adjustments.¹⁹ The Standard and Poor's rating was reduced in two steps in the first quarter of 2007 from A- (stable) to BBB+ (negative). Moody's rating remained higher (at an equivalent of an A) but was reduced from positive to stable outlook in September 2007. Both ratings remained above the investment-grade cutoff during this period. The large downgrading of Latvian sovereign debt began in August 2008, subsequent to a run on Parex Bank, Latvia's second largest (and largest domestic-owned) bank, and bottomed out in the last quarter of 2009. The ratings agencies, thus, showed a modest increase in their assessment of risk in early 2007, but the largest downgrades only occurred after the run on Parex Bank – when everyone recognized that a crisis was in full swing.

C. IMF Participation in the EU Financial Stability Plan.

The recent experience of Greece in the international bond markets has led to a number of initiatives to support Greece, the Euro and financial stability. In May 2010 Greece reached agreement with the International Monetary Fund (IMF), the European Commission, and the European Central Bank

(ECB) on a focused program to stabilize its economy, become more competitive, and restore market confidence with the support of a €110 billion (about USD \$145 billion) financing package. Simultaneously, the European Community created the European Stabilization Mechanism “to present financial stability in Europe” by providing guarantees of up to €500 billion (about USD \$660 billion) sovereign borrowing from international capital markets.²⁰ The ECB for its part amended its operating procedures to allow purchases of public and private debt obligations from member countries. The ECB quickly put the plan into action, buying government bonds of Greece, Ireland, Portugal, Spain and Italy.²¹

This episode has many fascinating strands. There is a “run on the bank” feature, with the ECB playing the role of lender of last resort to Greek commercial banks. There is a heavily indebted sovereign government forced to pay destabilizingly high interest rates to roll over its debts, with the European Community willing to provide guarantees to bring those interest rates down to manageable levels. And there’s the IMF’s participation: but why? It would seem that the EU and ECB institutions span the set of mechanisms necessary to deal with this crisis.

I have no definitive word on this, but here are some possible rationales:

- **Bridge financing.** EU action through the European Stabilization Mechanism will ultimately be massive, but disbursements cannot occur immediately. The IMF can provide short-term debt finance until that mechanism is operational.
- **IMF expertise in designing and supervising policy conditionality.** There is agreement within the EU that reforms will be necessary in Greece. EU governments do not want to be seen dictating policy to a fellow member, and there may in fact be no consensus among members for the specific conditions to be placed on Greece. The EU thus delegates its condition-design and monitoring role to the IMF. This is a specific example of the Tirole (2002) and Jeanne et al. (2008) view of IMF comparative advantage. In this case the IMF can also serve to defuse common-agency problems when existing EU members favor different macroeconomic reforms for Greece.
- **Burden-sharing.** Including IMF financing in this program will lessen the exposure of European countries to the rescue efforts. The increased resources of the IMF have come from many countries, only a few of which are within the EU. By including the IMF in the European initiative, the US, Japan, China and other IMF member countries will provide part of the financing necessary.

The Eastern Europeans will see this as both good and bad news. The good news will come if the IMF participation facilitates a solution to the EU/Euro uncertainty. A healthy “old Europe” is a necessity for rapid growth to return. The bad news comes from the need to provide more foreign-exchange financing for the IMF in order to allow it to do its work. All members are being called upon to increase their subscription in the IMF, and those are funds that the countries would certainly like to have back.

6. Conclusions and extensions.

The IMF was invented in the beginning to sustain a fixed-exchange-rate regime. Its activities were designed in essence to keep small crises from becoming big ones, to keep local imbalances from

becoming global crises. Times have changed, and the IMF is now best known as a crisis manager, with a mandate to keep big crises from getting bigger.

Eastern Europe has suffered relatively more due to the international financial crisis when compared to other emerging economies. While propinquity to “old Europe” and loss of export market due to its current recession is one reason, the size and differentiation in output reduction across these countries indicates a financial-sector explanation is also needed. The degree of cross-border financial flows pre-crisis exacerbated the effect of the crisis, causing “sudden stops” proportional to the reversal of cross-border flows.

The IMF has gone from an afterthought to a central player in world financial markets thanks to the financial crisis. It performed as a lender of last resort during the initial days of the “sudden stop” for those countries most severely affected by financial-flow reversal, and its expertise in designing adjustment programs is being called into action throughout Eastern Europe and even among the original Euro-15.

I plan to investigate the hypotheses of this paper, and especially the effect of bank cross-border flows on the magnitude of output reductions, through a cross-sectional statistical estimation to provide additional evidence of the magnitude of this effect.

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Table 1: Growth Rates in World and Regional Output

	2006	2007	2008	2009	2010	2011
World	5.1	5.2	3	-0.6	4.2	4.3
Advanced Economies	3	2.8	0.5	-3.2	2.3	2.4
United States	2.7	2.1	0.4	-2.4	3.1	2.6
Euro Area	3	2.8	0.6	-4.1	1	1.5
Japan	2	2.4	-1.2	-5.2	1.9	2
Others	3.9	3.9	1.2	-2.3	3	3.4
Emerging and Developing Economies	7.9	8.3	6.1	2.4	6.3	6.5
Central and Eastern Europe	6.5	5.5	3	-3.7	2.8	3.4
CIS	8.5	8.6	5.5	-6.6	4	3.6
Developing Asia	9.8	10.6	7.9	6.6	8.7	8.7
MENA	5.7	5.6	5.1	2.4	4.5	4.8
Sub-Saharan Africa	6.5	6.9	5.5	2.1	4.7	5.9
Western Hemisphere	5.6	5.8	4.3	-1.8	4	4
Memorandum						
Value of World Output (in billions of US Dollars) at market exchange rates	49,155	55,392	61,221	57,937	61,781	65,003
Volume of Exports of Goods and Services						
Advanced Economies	8.6	6.3	1.9	-11.7	6.6	5
Emerging and Developing Economies	10.4	9.7	4	-8.2	8.3	8.4

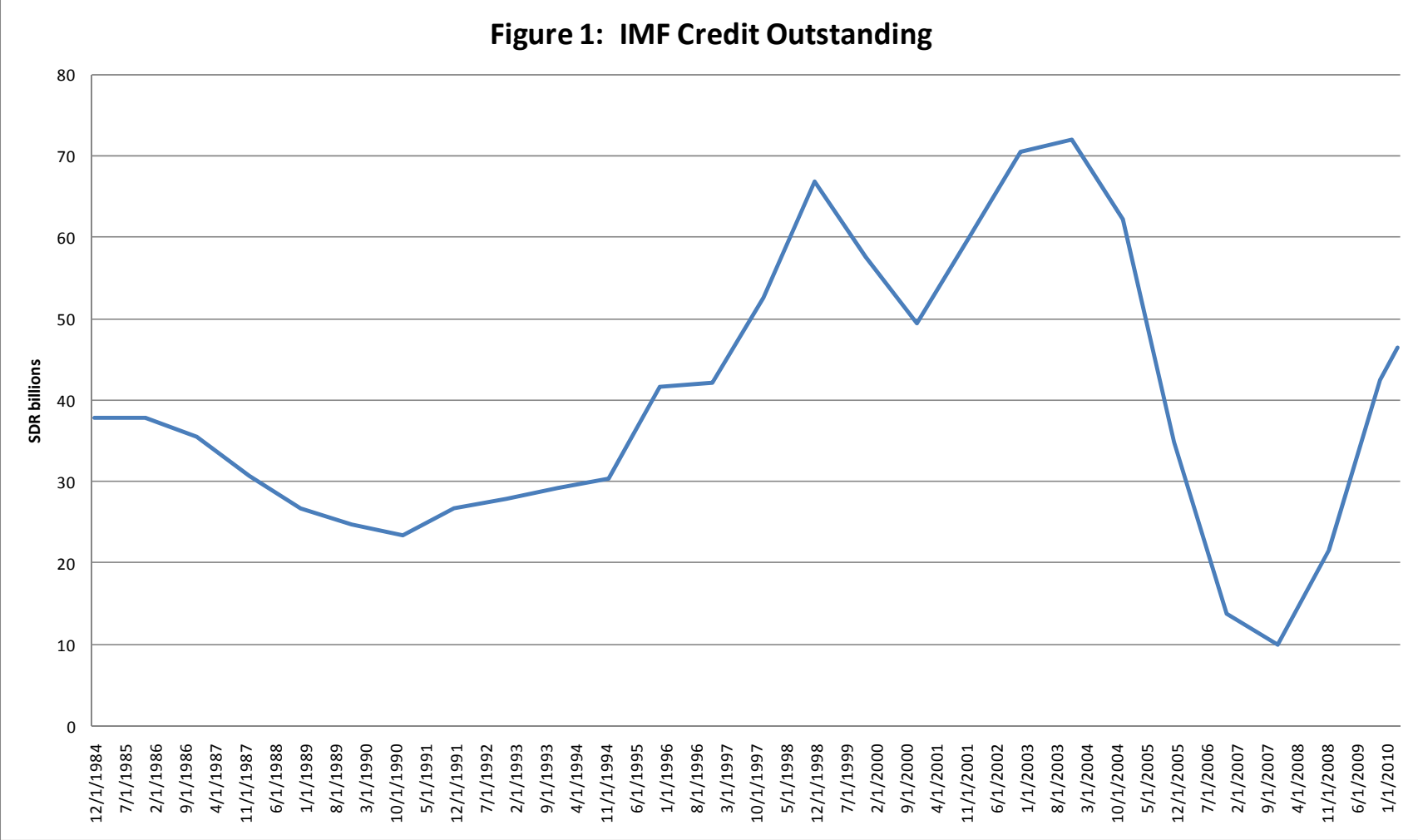
Source: World Economic Outlook, April 2010, International Monetary Fund.
The results for 2010 and 2011 are projections.

Table 2: IMF Lending Arrangements
(in thousands of SDRS, on 30 April 2010)

Stand-By and Extended Arrangements (SBA, EFF)				Poverty Reduction and Growth Trust Extended Credit Facility (ECF) 1/			
Member	Date of Arrangement	Expiration	Total Amount Agreed	Member	Date of Arrangement	Expiration	Total Amount Agreed
Angola	23-Nov-09	22-Feb-12	858,900	Afghanistan, Islamic Republic of	26-Jun-06	25-Jun-10	81,000
Armenia, Republic of	6-Mar-09	5-Jul-11	533,600	Burundi	7-Jul-08	6-Jul-11	46,200
Bosnia and Herzegovina	8-Jul-09	30-Jun-12	1,014,600	Central African Republic	22-Dec-06	30-Jun-10	69,620
Costa Rica	11-Apr-09	10-Jul-10	492,300	Comoros	21-Sep-09	20-Sep-12	13,573
Dominican Republic	9-Nov-09	8-Mar-12	1,094,500	Congo, Democratic Republic of	11-Dec-09	10-Dec-12	346,450
El Salvador	17-Mar-10	16-Mar-13	513,900	Congo, Republic of	8-Dec-08	7-Dec-11	8,460
Gabon	7-May-07	6-May-10	77,150	Cote d'Ivoire	27-Mar-09	26-Mar-12	373,980
Georgia	15-Sep-08	14-Jun-11	747,100	Djibouti	17-Sep-08	16-Sep-11	12,720
Guatemala	22-Apr-09	21-Oct-10	630,600	Gambia, The	21-Feb-07	20-Feb-11	24,880
Hungary	6-Nov-08	5-Oct-10	10,537,500	Ghana	15-Jul-09	14-Jul-12	387,450
Iceland	19-Nov-08	31-Aug-11	1,400,000	Grenada	18-Apr-10	17-Apr-13	8,775
Iraq	24-Feb-10	23-Feb-12	2,376,800	Guinea	21-Dec-07	20-Dec-10	69,615
Jamaica	4-Feb-10	3-May-12	820,500	Liberia	14-Mar-08	13-Mar-11	239,020
Latvia, Republic of	23-Dec-08	22-Dec-11	1,521,626	Malawi	19-Feb-10	18-Feb-13	52,050
Maldives	4-Dec-09	3-Dec-12	49,200	Mali	28-May-08	27-May-11	27,990
Moldova, Republic of	29-Jan-10	28-Jan-13	184,800	Mauritania	15-Mar-10	14-Mar-13	77,280
Mongolia	1-Apr-09	1-Oct-10	153,300	Moldova, Republic of	29-Jan-10	28-Jan-13	184,800
Pakistan	24-Nov-08	30-Dec-10	7,235,900	Nicaragua	5-Oct-07	4-Oct-10	78,000
Romania	4-May-09	3-May-11	11,443,000	Niger	2-Jun-08	1-Jun-11	23,030
Serbia, Republic of	16-Jan-09	15-Apr-11	2,619,120	Sao Tome & Principe	2-Mar-09	1-Mar-12	2,590
Seychelles	23-Dec-09	22-Dec-12	19,800	Sierra Leone	10-May-06	9-May-10	51,880
Sri Lanka	24-Jul-09	23-Mar-11	1,653,600	Tajikistan, Republic of	21-Apr-09	20-Apr-12	78,300
Ukraine	5-Nov-08	4-Nov-10	11,000,000	Togo	21-Apr-08	20-Apr-11	84,410
Total			56,773,196	Zambia	4-Jun-08	3-Jun-11	220,095
				Total			2,562,168
Flexible Credit Line (FCL)				Exogenous Shock Facility (ESF)			
Member	Date of Arrangement	Expiration	Total Amount Agreed	Member	Date of Arrangement	Expiration	Total Amount Agreed
Colombia	11-May-09	10-May-10	6,966,000	Ethiopia	26-Aug-09	25-Oct-10	153,755
Mexico	25-Mar-10	24-Mar-11	31,528,000	Kyrgyz Republic	10-Dec-08	9-Jun-10	66,600
Poland, Republic of	6-May-09	5-May-10	13,690,000	Maldives	4-Dec-09	3-Dec-11	8,200
Total			52,184,000	Mozambique	30-Jun-09	29-Jun-10	113,600
				Senegal	19-Dec-08	18-Jun-10	121,350
				Tanzania	29-May-09	28-May-10	218,790
				Total			682,295

USD \$1 = 0.684 SDRs
1 SDR = USD \$1.462

Source: International Monetary Fund



Source: International Monetary Fund. Includes both GRA and PRGT purchases.

Figure 2: Annual Real Growth in 2009 in Eastern European countries

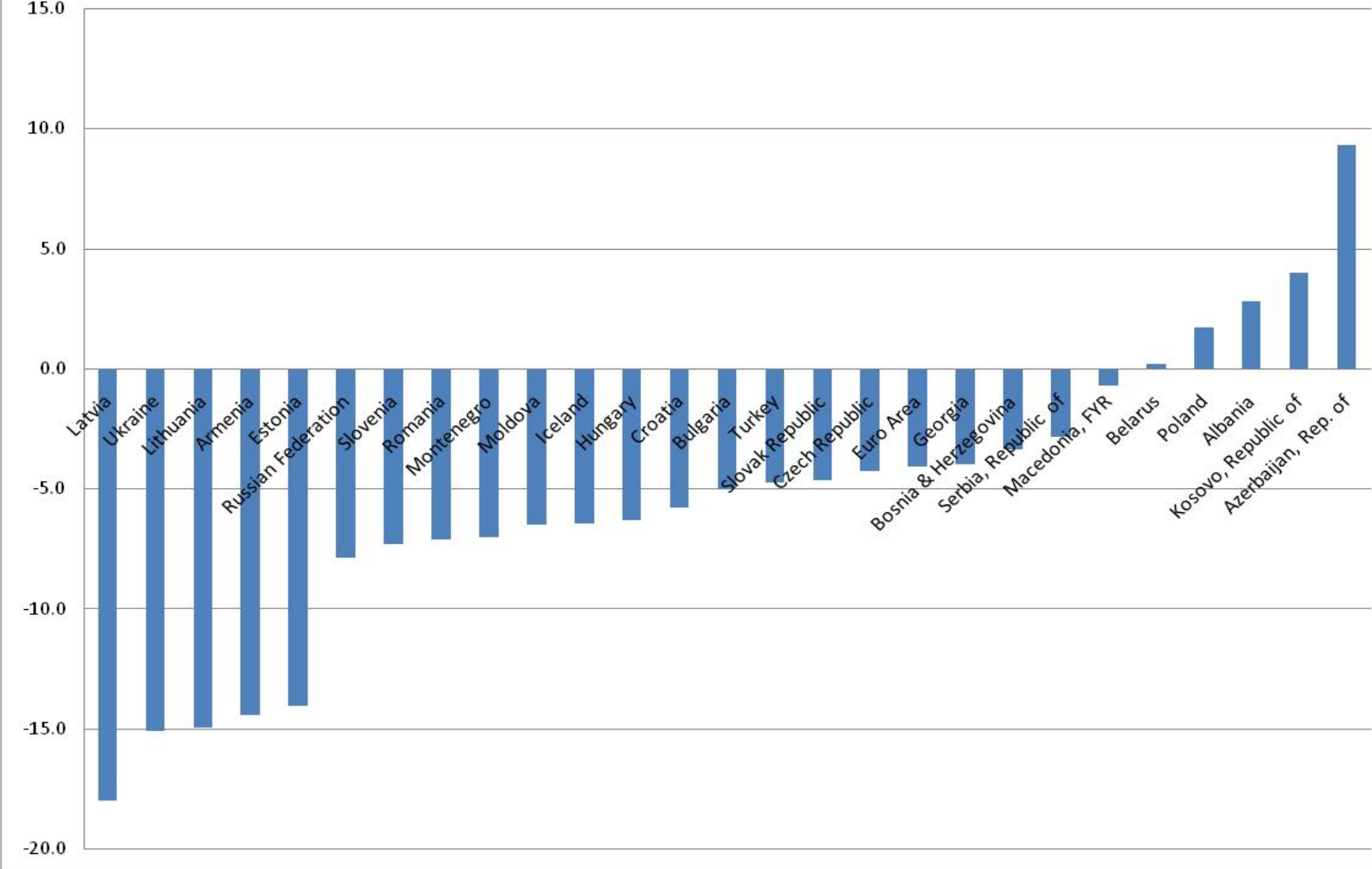


Figure 3: Economic Growth In Selected Eastern European Countries

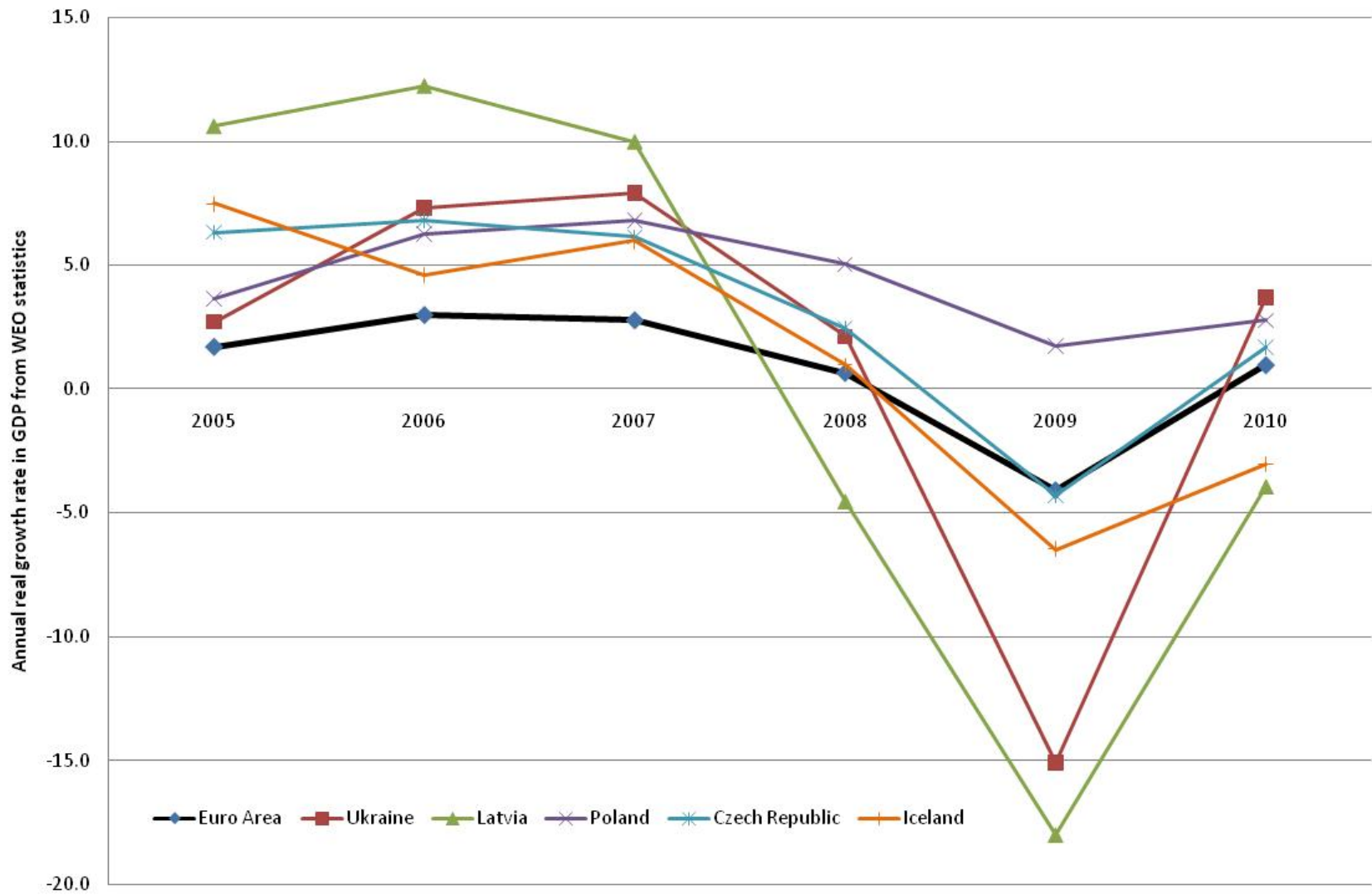
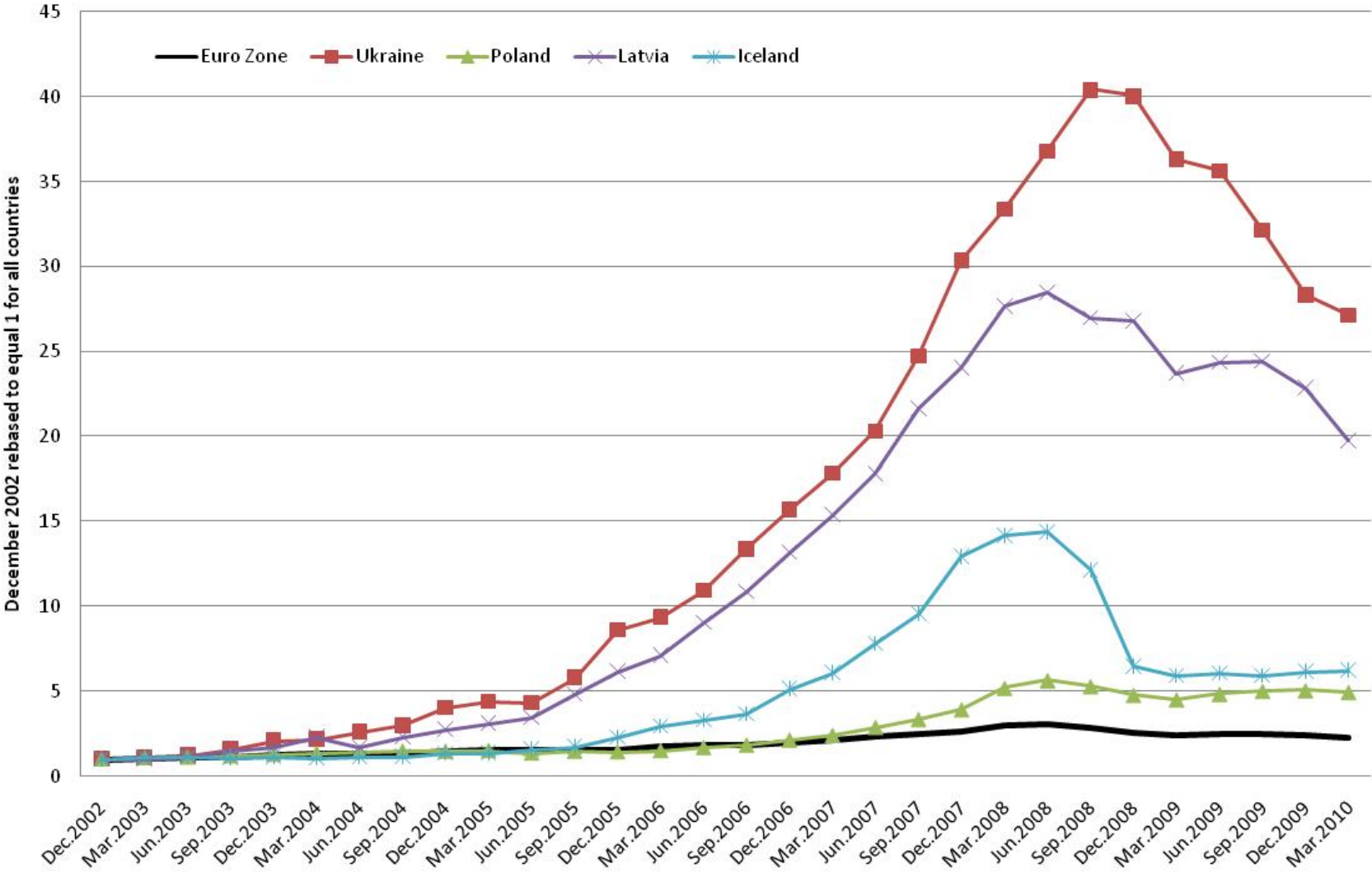
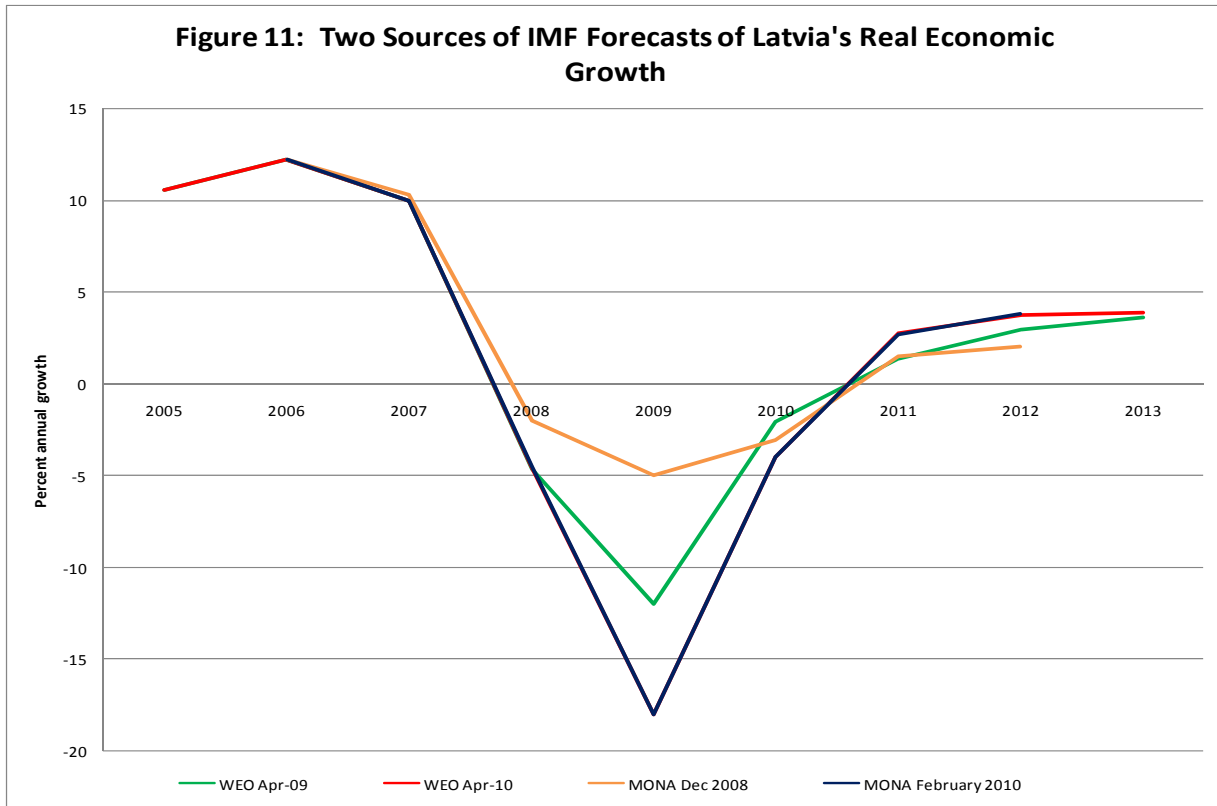


Figure 6: Growth In Loans From Reporting Banks To Selected Countries



Source: World Economic Outlook, International Monetary Fund, various issues



Sources: World Economic Outlook and MONA databases, International Monetary Fund.

Endnotes

¹ As reported in Weisman (2007).

² The Final Communique from the meeting is found at <http://www.g20.org/Documents/final-communique.pdf>.

³ See Boughton (2006, p. 19).

⁴ Conway (2007) provides a detailed look at this bifurcation and the way in which the split has evolved over time.

⁵ He also discusses the importance of common agency in international financial contracts, but this is less important in the context of IMF activity.

⁶ The extensive empirical literature on the catalytic effect of IMF lending (e.g., Bird and Rowlands (2008) for a recent example) represents a test of this view.

⁷ Vaubel (1983) presents a strong statement of the negative consequences of moral hazard, and continues the logic to argue that the IMF should not lend under any circumstance. There have been numerous empirical tests of moral hazard created by IMF activity; Conway (2006) provides a survey of the literature that includes Dreher (2004) and Dreher and Vaubel (2004).

⁸ Williamson (1983) provides an early summary of the critique of IMF conditionality. Jeanne et al. (2008) is an excellent recent summary of the evolution of IMF conditionality.

⁹ Projections are reported for the year of the report as well as the subsequent years. For later forecasts, I insert actual data (from the US Economic Report of the President) for the earlier years. For example, the April 2010 forecasts include historical data for 2007-2009. The Federal Reserve forecast for Figure 2b is created by taking the midpoint of the reported “Central Tendencies” range of forecasts by Federal Reserve presidents and board members.

¹⁰ Federal Reserve forecast growth rates are fourth quarter over fourth quarter, while IMF are year-over-year. The historical data are also year-over-year.

¹¹ The information in this paragraph not otherwise given citation is drawn from Moghadam (2009) and <http://www.imf.org/external/np/exr/faq/sdrfaqs.htm>.

¹² There is a difference between the total “credit outstanding” in Figure 1 and the total value of IMF lending programs reported in Table 2. The table reports the initial contractual value of the loan or credit line, while the figure reports the amount of the loan or credit line outstanding. Some loans are partially repaid; other loans or credit lines are not yet disbursed.

¹³ Calvo (1998) is a good explanation of this phenomenon from its original expositor.

¹⁴ I follow the EU in defining Europe to include Georgia, Armenia and Azerbaijan as well as the more traditional countries.

¹⁵ The data are drawn from the World Economic Outlook database of the IMF. The statistics are realized through 2009 but are projected for 2010.

¹⁶ These figures are provided by the Bank for International Settlements.

¹⁷ Latvia first entered a one-year Stand-by Arrangement (SBA) with the IMF in 1992, and negotiated a second SBA, this time for 18 months, in 1993. It drew down a total of 110 million SDRs from those two arrangements. Latvia also negotiated “precautionary” SBAs in 1995, 1996, 1997, 1999 and 2001, but did not make any drawings from these. Latvia made its final repayment on the 1992/1993 SBAs in 2004.

¹⁸ For the more recent forecasts, historical data are inserted for earlier years. For example, the April 2010 forecast has historical values for 2005 through 2008.

¹⁹ To create a comparison of the two ratings, I based both AAA and Aaa at a value of 22. I then subtracted 1 point for each step down (e.g., AA+ is 21, AA is 20, AA- is 19 in the Standard and Poor’s ratings.) The ratings agencies also provide outlooks paired with the ratings (for Standard and Poor, the three outlooks are positive, stable and negative). Stable outlook is viewed as the default for each rating; a positive outlook is treated as a 0.5 upward shift over stable and a negative outlook as a 0.5 downward shift.

²⁰ <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/10/173>.

²¹ Blackstone, B.: “Amid the Storm, Questions about Bank’s Role”, Wall Street Journal, 11 May 2010.