OPPONENTS COMMENTS ON “EMPIRICAL ESSAYS ON CRISES, REFORMS AND GROWTH”

This thesis consists of three essays that explore the effects of systemic banking crises on financial reform, the effects of liberalizing reforms on output and growth, and the differential impact of liberalizing reforms by firm size. The essays share overarching themes of the endogeneity of regulatory change and of crises, and also examine the varying effects of reforms, offering new insights in several areas.

Since the opponent’s job is to point out possible weaknesses of the arguments, I will not spend further space on recounting the contributions of these generally well-executed essays. Instead, I will focus on what I see as a key issue: an outdated and overly simplistic view of the relationship between financial development and growth. This problem affects policy recommendations in Chapters 1 and 2, and it may call into question the design of the regressions in Chapter 2 as well. I also will make some comments about the relationship between financial liberalization and financial instability, and the complexities of defining optimal regulation.

The author calls on the literature to claim that increased competition and market reforms in banking markets are welfare-increasing (e.g. p 17 footnote 10, in the policy recommendations section on page 28, and in the conclusion to chapter 2 on page 66). He also links these points to the argument that increased financial development leads to increased economic growth. As a theoretical basis for this argument, the author points out that tighter regulation increases spreads between lending and deposit interest rates, negatively affecting investment. This is certainly a powerful argument that has a clear foundation in the literature.

However, important arguments on the other side have been advanced. The question of whether increased competition increases financial instability is controversial, but there is a strong tradition in the literature arguing that decreases in franchise value lead to greater instability. This suggests that increased competition could also increase instability (Besanko and Thakor 1993, Demsetz et al 1996, Keeley 1990, Edwards and Mishkin 1995 among others; also Allen and Gale 1999, 2000, 2004, Beck 2008 and Saez and Shi 2004 review other arguments suggesting a competition-fragility link).

If it is granted that increased competition can increase instability, then it must also at least be considered that financial liberalization can increase instability. In fact, the author cites the classic Demirguc-Kunt and Detriagache (1998) paper stating exactly this. While this could be a powerful counterweight to the interest spreads-investment mechanism the author discusses, it is left dangling. However, recent work by Rousseau and Wachtel (2011) finds that it is precisely in those countries that have experienced major financial crises that the relationship between financial deepening and long-term economic growth has broken down, particularly since the 1990s.

Not to belabor the point, but there are well-known arguments suggesting that an increased frequency of banking crises could have direct output effects. Perhaps the best-known in the famous Bernanke arguments about the output effects of the destruction of information capital in bank failures during the Great Depression in the US suggests that financial instability is output decreasing. Admittedly, Ranciere,

Tornell and Westerman (2008) actually find that a greater financial development leads to greater economic growth despite a higher frequency of crises, so there is literature on both sides of this issue.

Looking at the financial development-growth nexus literature more generally, there certainly was dissenting/qualifying literature about the beneficial effects of financial development on economic growth even before the Financial Crisis. Demetriades and Hussein (1996), Demetriades and Law (2006), Rousseau and Wachtel (2002) are just three such works. And this literature has only gained ground since. The paper mentioned above by Rousseau and Wachtel (2011) offers evidence that the positive effect of finance on growth has vanished for the periods 1990-4, 1995-1999, and 2000-03. Arcand, Erkes and Panizza (2012) use both cross-country panel data and Rajan-Zingales style cross-country industry-level evidence to find that increased financial depth actually *decreases* output growth when credit to the private sector exceeds 100% of GDP. And Cechetti and Kharroubi (2012) find very similar results with somewhat different methods. Quite interestingly, they use of the share of employment in the financial sector as a variable capturing the misallocation of skilled labor to higher-earning but less productive jobs in the finance sector in one of their tests, suggesting a very different growth-reducing mechanism.

This dissertation makes its own contribution towards evaluating whether financial reform affects growth in Chapter 2. In addition, that analysis has something to say about whether the Financial Crisis really has shifted the balance between the growth-enhancing effects and the stability-reducing effects of financial development, since the impact of reform efforts on output and growth are evaluated for the period 1990-2010. However, 2010 might turn out to be too short a horizon to observe the full effects of the Financial Crisis. Arguably, some of the countries hardest hit by banking crises in the Financial Crisis, including the UK, Ireland, and Spain, have yet to show clear signs of recovered growth. Further data and analysis will be needed to see whether greater pre-crisis financial development has actually led to slower growth in the medium-term and even over the whole next business cycle.

Even now, given the findings of Arcand, Erkes and Panizza (2012) and Cechetti and Kharroubi (2012), it would seem prudent to check whether the relationships between reform timing and persistence studied in Chapter 2 are robust to controlling for the level of financial development. One possibility would to add a dummy variable for the number of years that credit to the private sector exceeded 100% of GDP, or another variable that would pick up the non-linearity found in these two papers.

Another important issue that runs through chapters 1 and 2 is whether it is possible to identify optimal degrees of liberalization. The author points out on page 27 that considering only seven measures of regulatory policy is not very specific, and he notes that the optimal regulatory policy may vary from country to country or from time to time. However, the policy recommendations made are not really consistent with these cautions. I would suggest that it is very important to put more distance between the positive findings of the dissertation, and the normative implications, which to my taste are overly far-reaching.

A few smaller points should also be attended to. In light of the uncertainty surrounding the effects of the Financial crisis and whether the crisis has caused structural breaks in important relationships, it

would be important for the author to clearly denote the time periods that are studied in the regressions in Chapter 1. A row should be added to the regression results stating the time period covered.

Another issue in Chapter 1 is that the issue of contagion is studied by looking at banking crises in countries with strong trade links to the country in question. However, it is not clear to me why banking crises in another country would be more important than simple output declines. To use the Finnish example mentioned in the text: the collapse of output in the Soviet Union in 1990-91, rather than a banking crisis in the Soviet Union, caused the Finnish output decline and banking crisis. In light of this, is the contagion variable well-constructed? Should the attempt to control for the endogeneity of banking crises look at both banking crises and unusually sharp output declines in major trading partners?

Also, in Chapter 1, it seems that there might be an important distinction between capital controls on inflows and capital controls on outflows. Controls on inflows would perhaps make sense during a credit boom, while controls on outflows would perhaps make sense in the aftermath of a crisis. It seems that the variable examined here combines the two. Can this be remedied?

In Chapter 2, by construction, all transition economies are late reformers. Does it make sense to treat these countries in the same way as countries that were market economies and chose not to reform in the early period? Would it make sense to do sensitivity analysis either by leaving the transition countries out, or by including appropriate dummy variables for transition economies that were politically constrained (one might say hard-wired) regarding reforms before 1990?

In summary, I would not be comfortable approving this thesis without efforts to resolve these issues.

ADDITIONAL LITERATURE

Allen, F. and Gale, D. (2004), Competition and financial stability, *Journal of Money, Credit, and Banking* 36:3, 433-480

Arcand, Jean-Louis, Enrico Berkes and Ugo Panizza, (2012) “Too Much Finance?” *IMF Working Papers* Number 161, June.

Beck, T. (2008), “Bank Competition and Financial Stability: Friends or Foes”, *World Bank Policy Research Working Paper,* 4656

Besanko, D. and Thakor, A.V. (1993), “Relationship banking, deposit insurance and bank Portfolios”, In: Mayer, C. and Vives, X. (eds), Capital markets and Financial intermediation, Cambrige, 292-318

Cechetti, S., Mohanty, M. and Zampolli, F. (2011) “The Real Effects of Debt” *BIS Working Paper 352*, November.

Cechetti, S., and Kharroubi, E. (2012) “Reassessing the Impact of Finance on Growth” *BIS Working Papers* 381, July.

Demetriades, P.O. and Hussein, K. A., (1996), "Does financial development cause

economic growth? Time-series evidence from 16 countries," *Journal of Development Economics*, 51(2), 387-411.

Demetriades, P.O. and Law, S.H., (2006), "Finance, institutions and economic development," *International Journal of Finance and Economics*, 11(3), 245-260.

Demsetz R., Saidenberg, M. and Strahan, P (1986), Banks with Something to Lose: The Disciplinary Role of Franchise Value, Federal Reserve Bank of New York, working paper, http://www.nyfedeconomists.org/research/epr/96v02n2/9610dems.pdf

Edwards, F.R. and Mishkin, F.S. (1995), The decline of traditional banking: implications for financial stability and regulatory policy, Economic Policy Review, Federal Reserve Bank of New York, July, 27-45

Keeley, M.C., (1990), Deposit insurance, risk and market power in banking**,** *American Economic Review* 80, 1183-1200.

Ranciére, R., Tornell, A., and Westermann, F. (2008), "Systemic Crises and Growth," *Quarterly Journal of Economics* 123(1), 359–406.

Rousseau, P., and Wachtel, P., (2002), "Inflation thresholds and the finance-growth nexus," Journal of International Money and Finance, 21(6), 777-793.

Rousseau, P., and Wachtel, P., (2011), "What is Happening to The Impact of Financial Deepening on Economic Growth?" Economic Inquiry, 49, 276–288.

Saez, L. and Shi, X., (2004), “Liquidity pools, risk sharing and financial contagion”, *Journal of Financial Services research* 25, 5-23.