



Hot money and cold comfort

Global capital movement and financial crises in emerging economies ¹

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1. Introduction

IN THE 19th Century, when the United States was a new nation, it had an unregulated free market system for banking and credit. Any individual with a reputation for honesty among his neighbors could open a bank, accept deposits, make loans, and issue script that could be used as money. This system fueled innovation by creating markets in which resources could flow to their most productive use, and the U.S. economy grew rapidly. However, the system was intrinsically unstable. Any natural event, loan whose quality was questioned, or even rumor could set off a run of withdrawals by depositors that the bank had insufficient liquidity to satisfy, leading the bank to fail. This could happen even in circumstances where the fundamentals of the bank were sound, with solid prospects for eventual recovery of loan principal and interest that would cover all deposits.

Further, these panics and the resulting bank failures spread havoc, ruining depositors and businesses who lost their lines of credit. The failures often cascaded into national panics that fed violent business cycles with frequent contractions. Not only did these financial stutters in the system slow the pace of economic growth, but they placed a heavy toll on the lives of individuals.

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The eventual policy response in the United States to this situation was to introduce central banking, reserve requirements, bank regulation, depositor insurance, and bankruptcy law. Over the past 50 years, these institutions, for the most part carefully administered, have in the United States largely eliminated banking crises and the severe business cycles these crises can generate.

The system is not perfect. In the 1980's, the U.S. relaxed some of the stringent regulations governing the loan portfolios of a class of financial institutions called Savings and Loan Associations. These organizations were in many cases not sufficiently well capitalized and managed to survive in an openly competitive environment, but by pursuing increasingly risky loan portfolios, they postponed failure. Because deposits were insured by the government, these risky strategies did not cause them to lose depositors. When failure came, the government had to bear the heavy cost of bailing out the depositors. This was a case where the system of regulation created unintended incentives, encouraging financial firms to "gamble with the government's money". If their gambles paid, then they were solvent; if not, it was the government and ultimately the taxpayers that had to take the loss. The lesson is that an insurer of last resort faces a severe moral hazard, an incentive structure that encourages the insured to assume additional risks, *unless* the insurance arrangement also contains sufficient prudential supervision and control to blunt these incentives.

2. Currency crises

The reason for recalling this history is that the international capital market today resembles in many respects the U.S. credit market 150 years ago, with virtually unregulated free flow of capital across borders that fuels innovation and economic growth, but also creates volatility and financial panics that hinder economic development and damage people's lives. The pattern is now familiar. Opening the borders of an emerging economy and liberalizing or deregulating its financial institutions, combined with insufficiently developed financial regulation, aggressive promotion of economic development, or loose government fiscal policy, leads to heavy international borrowing, with loans denominated in dollars or other industrialized country currencies. Much of the borrowing is for highly productive and innovative investments, but easy access to credit and weak financial intermediaries may also induce unwise investments or borrowing to finance current government spending. Then, some triggering event occurs, perhaps the insolvency of one or more large banks, a run by depositors, a drop in export demand, or sudden and tumultuous pressure on a fixed or crawling

peg exchange rate, and a currency crisis starts. Hot capital flows out of the country, loans from foreign institutions are not rolled over, and if the currency is not released to float freely, it comes under speculative attack. This precipitates a full-fledged financial crisis in which financial institutions may fail, and the country experiences economic, political, and social turmoil, including increased cost of borrowing or loss of access to international capital markets. Fiscal austerity follows, often as the price of IMF intervention to stabilize the situation, economic growth is stunted, many businesses fail because they do not have sources of dollar revenue to service their suddenly very expensive dollar-denominated debt and do not have secure credit lines, and workers are damaged by the fall in economic activity and employment.

We all know about the Asian currency crisis in 1997, the Russian crisis in 1998, and the Argentinean crisis in 2002, but these are only the most visible of an epidemic of problems. The IMF reports that of its 180 member nations, 130 had serious banking problems between 1980 and 1995, and there were 211 episodes of banking or currency crises in this period.

Further, the economic costs of these crises were substantial. Typical time to recovery to trend following a currency crisis was 18 months, and typical total lost output was 4.3 percent of annual GDP. Banking crises were more severe, typically lasting 3.1 years and resulting in total lost output of 11.6 percent of annual GDP. The worst crises can be truly devastating. In the 1997 currency crisis in Asia, South Korea lost more than half-a-year's GDP in potential output, and the ongoing crisis in Argentina is even worse. One of the features of currency crises is that they often spill beyond a nation's borders. Thus, the Asian crisis in 1997 spread from Thailand to Indonesia, Malaysia, the Philippines and Korea. The proximate cause of the Argentinean crisis in 2002 was a large burden of dollar-denominated loans, a fixed exchange rate that was unsustainable given domestic inflation and its impact on trade, and rapid flows of Argentinean capital out of the country. However, a contributing cause was a unilateral Brazilian devaluation a year earlier that had a substantial adverse impact on Argentinean exports. I will spend some time today talking about fiscal policy in the United States, and the risk that it will ignite a financial storm that could sweep across the entire international market system and do great damage to unwary emerging economies.

There are five significant risks associated with foreign borrowing:

- Exchange rate risk —domestic currency depreciates relative to foreign currency denomination of loans
- Maturity risk —too much short-term debt or hot money relative to payoff periods for investments

- Interest rate risk —international (e.g., LIBOR) rate volatility.
- Service risk —domestic contractions, export volatility, or investment project failures increase burden of debt service.
- Panic/Speculative risk —events trigger speculation against the domestic currency and flight of hot capital.

What changes could be made in emerging economies and in international capital markets that would reduce these risks, and the frequency and severity of financial crises? I will first discuss what emerging nations can do for themselves to reduce the probability of originating or being infected by crises, and to minimize their effects when they do occur. After that, I will discuss what the community of nations might do to reduce volatility and provide a safety net for its constituent members.

An initial question is whether emerging economies should embrace globalization of economic activity and borrowing, or resist it. If participating in the global economy entails such risks, might a country be better off by closing its borders, limiting trade, making its currency non-convertible, restricting capital flows, in the model of the old Soviet Union? While there is some merit to Benjamin Franklin's adage "Neither a borrower nor a lender be", the answer today seems to be no. The gains from participation in international trade for goods and services bring economic benefits that substantially outweigh the risks associated with globalization. Countries that have sought autarchy, such as North Korea, have fared less well than countries such as South Korea and China that have aggressively pursued global markets. There are cases where timely interference with international capital movements seems to have worked to moderate the domestic impact of crises, for example the imposition of capital flow restrictions in Malaysia in 1998 and 1999, and the relatively tough bargaining stand that Argentina appears to be using with some success to emerge from its wrenching crisis in 2002. However, these are emergency responses to crises in progress, not prescriptions for financial management under normal conditions.

In a talk at the National Academy of Sciences in 2002, the U.S. Secretary of State Colin Powell stated what I consider to be a sound position on globalization; I paraphrase his statement: "There is no point in being *for* globalization or *against* globalization. Like the weather, it is just there. We should concentrate on how to live with it, maximize its benefits, and minimize its costs."

What can emerging economies do to take advantage of international trade and globalized capital markets to stimulate economic growth, without greatly increasing the risk of currency crises? What internal policies and reforms are

self-protective? I will discuss three broad areas, prudential supervision of financial intermediaries, responsible fiscal policy, and institutions to allow pooling of risks within and across borders.

3. Prudential supervision

Prudential supervision of financial intermediaries is essential if lenders and depositors are to have confidence that they are sound and well managed. Prudential supervision also provides the information that governments need to detect problems and attack them before they grow into crises. Prudential supervision requires that banking regulators be independent, strong, and of unquestioned integrity. It requires banking laws that prevent interlocking relationships between businesses and encourage transparent, arms-length transactions. One of the most important effects of effective prudential supervision is development of healthy domestic financial markets that keep domestic capital at home and reduce the need for foreign borrowing for development projects. Key elements of prudential supervision are:

- Transparent and uniformly applied laws and property rights regarding contract enforcement, bankruptcy, and repossession.
- Effective institutions for oversight and regulation, and consistent, stringent bank audits.
- Adherence to International Accounting Standards and public information on performance, accounting, and disclosure standards.
- Early warning systems for problem borrowers and active management of non-performing loans.
- Separation of financial management from industry and government, no connected lending.
- Coordination of regulating agencies across jurisdictions, with oversight of total financial firm operations, and tight control of off-shore operations.

Governments can play an important part in supporting and encouraging developments that provide jobs, fuel economic growth, and alleviate poverty. However, it rarely works well for governments to assume the dual role of regulator and customer of the banking sector. For example, the 1997 currency crisis in South Korea, while induced by volatility spread from Thailand, was greatly deepened by problems in the banking sector that came from government intervention to support charbols that were inefficiently managed and eventually unsustainable. The anemic economic performance of Japan over the past decade

is substantially due to an unwillingness of its government to undertake comprehensive banking reform that makes capital available to innovative projects. Unless there is a clear legal separation of banking and government, with the government sticking strictly to supervision, the risks of compromised regulation are high.

While the recent Parmalat scandal in Italy was, as its core, a simple fraud, the balkanization of banking regulation within Europe, and between Europe, the United States, and the Caribbean allowed the fraud to spread undetected and cause a great deal of collateral damage. The earlier Enron scandal in the United States was also abetted by laxity in supervision of off-shore banking operations. While these scandals both occurred in developed countries, similar problems on a smaller scale are also happening in emerging economies, and the globalization of banking without a corresponding globalization of supervision is increasing the risk of imprudent conduct or fraud.

Accountability of regulators and transparency of operations are most easily achieved when financial institutions are clearly separated from industrial ownership and management, and clearly separated from government. Otherwise, the blurring of lines between borrowers and lenders, and between financial firms and their regulators, creates incentives for imprudent behavior that can lead to risky loan portfolios and undermine depositor confidence. Today, there are a number of countries where banking is in trouble, and globalization of banking promises more trouble.

For example, in China, the state-owned banks are saddled with large portfolios of non-performing loans, most a hang-over from the time when both banking and manufacturing were under government management. Today, many of these banks are well-managed, and given a level playing field could compete effectively in global markets. Nevertheless, there is no way they can survive when China fully opens its banking market to foreign firms in 2007 unless the state assumes their legacy of pension obligations and bad paper. In many other countries, such as Italy and Indonesia, cronyism has led many banks to make unwise loans, and the resulting drag on those economies has been an impediment to growth.

When financial institutions are global, they have strong incentives to use international transactions and capital movements to circumvent regulation and disguise weakness. There is a need for regulatory bodies that are commensurately global in scope and can maintain oversight of the full spectrum

of firm operations. For example, the creation of the euro currency union makes national regulation of EU-wide and international banks very difficult. A great deal of strengthening of banking regulation at the EU level is needed if a cascade of future scandals like Parmalat is to be avoided.

4. Government fiscal responsibility

Government fiscal mismanagement is a second major source of currency crises. When weak tax systems conflict with strong spending priorities, politicians may choose “disguised taxation” through the issuance of debt to finance spending. When government debt stimulates an economy that is operating below capacity, or when it is used to finance productive investments, say in infrastructure, then it makes economic sense, in the same way that debt financing of new capacity in a profitable industry makes sense if the return from the investment exceeds its cost. However, when a government uses debt rather than taxes to finance current consumption and redistribution programs, even those with laudable objectives, this is a sign of weakness and fiscal irresponsibility. Further, its costs are high. There is the direct cost that future generations must bear of servicing the debt, and the future opportunities “crowded out” by debt service. Incentives for private investment are distorted. If the debt is financed by borrowing from abroad, in dollar-denominated loans, this makes the economy more vulnerable to exchange rate risk, and to the predations of speculators.

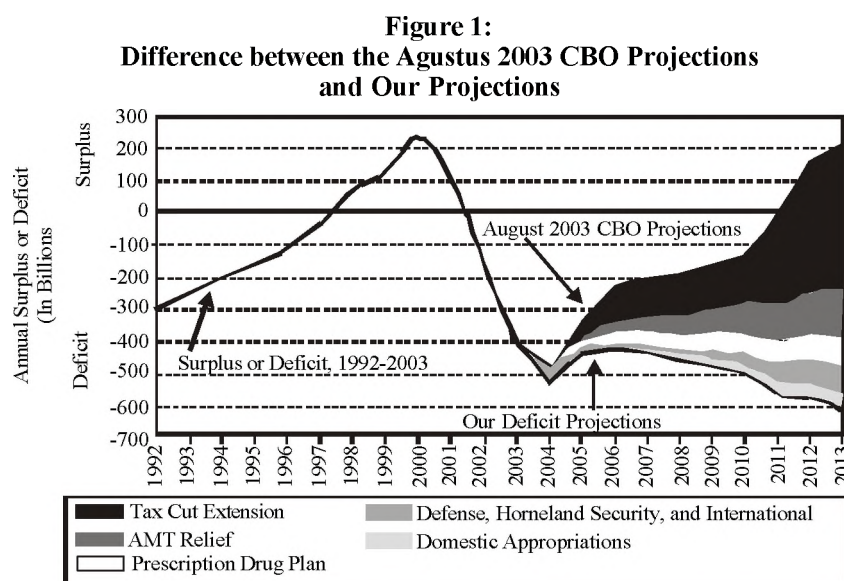
Finally, if accumulating government debt does trigger a currency crisis, then the entire economy is disrupted, with major economic costs. I have been asked, rhetorically, how I can call for fiscal responsibility when children are dying every day. I agree that protecting the lives, health, and welfare of its citizens should be a government’s highest priority.

However, financing these needs through unsustainable external borrowing that leads to currency crises and economic collapse compounds the problem and is not a solution. I believe that the only really effective way to deal with a society’s major social problems is through a “Scandinavian consensus” that all citizens will gain from a just society that taxes itself to address these problems.

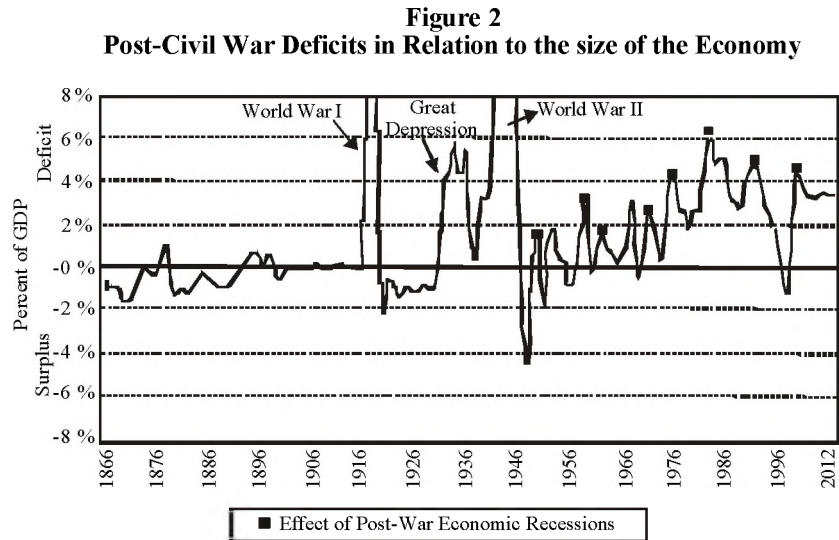
The leaders of the industrialized nations sometimes use the depreciatory term “banana republic” to refer to a country whose government is too weak or irresponsible to manage its fiscal operations properly. The problem is in fact world wide, including both industrialized and developing nations, and including

a number of countries at various times in Latin America. Today, the biggest “banana republic”, and the one most likely to trigger a global financial storm, is the United States. I am going to make some rather extended remarks on fiscal and trade policy in the United States, and explain why in my view it is a looming threat to the international financial system.

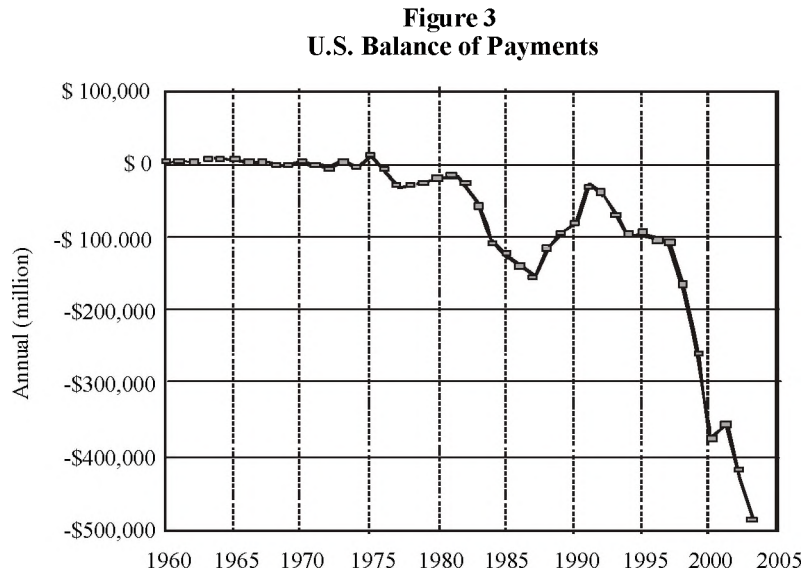
Figure 1 gives U.S. Government budget projections prepared by the Concord Coalition, a non-governmental organization that is relatively conservative on budget matters, and more realistic than the official projections of the Congressional Budget Office about extension of tax cuts and future spending patterns. They show the current budget deficit of \$523 billion, or 4.5 percent of GDP, continuing in the range of 400 to 600 billion per year over the coming decade, or around 3.5 percent of GDP. As a benchmark, note that the EU requires that member nations keep their budget deficits below 3 percent of GDP, and there is currently a quarrel because Germany and France are above that target. Government deficits in industrialized nations in the range of 3 to 5 percent of GDP have ample precedent, although they have been rare in the U.S. except during major wars, as Figure 2 illustrates.



Source: The Concord Coalition, The Committee for Economic Development, and the Center for Budget and Policy Priorities, *The Developing Crisis: Deficits Matter*, 20.



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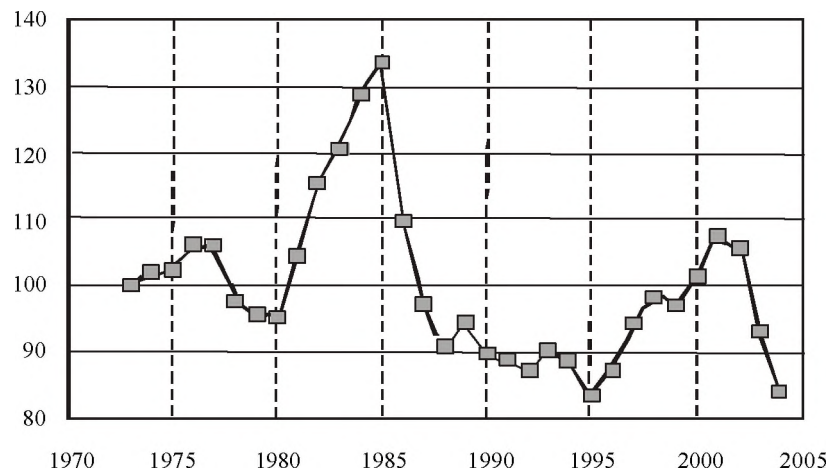


Source: U.S. Department of Commerce

Such deficits are inflationary when an economy is near capacity, may crowd out investment, and lead to accumulating debt service costs that squeeze current expenditures for government goods and services. When government deficits are financed externally, they increase the exposure of the country to risk from volatility in international capital markets, and increase the prospect of triggering a financial crisis. The current U.S. deficit is a concern for fiscal conservatives and many economists because it promises to persist through the next expansion, adding to inflationary pressure and pinching government spending on education and the environment. However, there are other factors in the U.S. fiscal picture that are much more alarming than today's deficit.

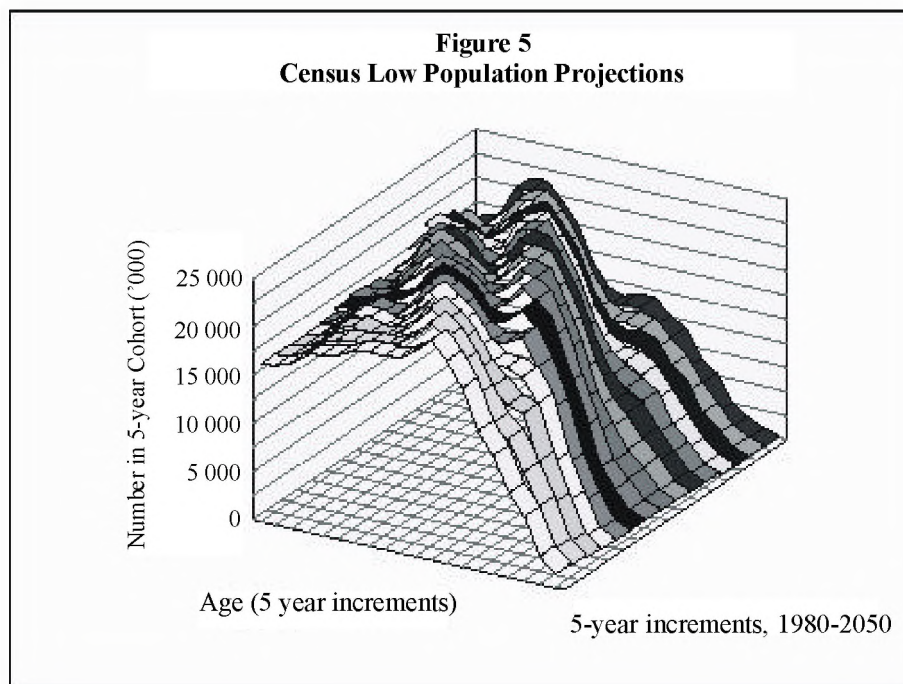
First, because savings rates in the United States are relatively low, U.S. government borrowing is associated with borrowing from foreigners, and is reflected in the balance of payments for goods and services. Figure 3 shows a sharp decline in the U.S. trade balance since 1997. This implies a corresponding increase in U.S. paper held abroad. Figure 4 shows that the U.S. exchange rate against the basket of major currencies has dropped by about 30 percent in the past two years, indicating increasing resistance to acquiring this U.S. paper. This is despite the fact that China, a major trading partner with whom the U.S. has a large bilateral trade deficit, has kept the yen pegged to the dollar and continues to rapidly accumulate dollars.

Figure 4
U.S. Exchange Rate
Index against Major Currencies



Source: Federal Reserve Board

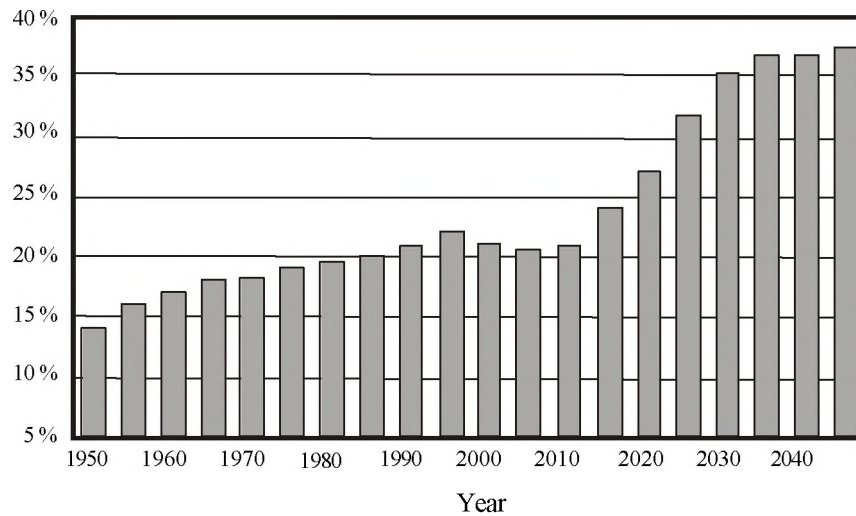
Do the twin deficits in the U.S., in the government budget and in the balance of payments, threaten a global financial crisis? Aside from the relative sizes of the two economies, is the situation in the U.S. today that much different than the situation in Argentina in 2000? Both countries faced sharply increasing debt service requirements, but the U.S. has one major advantage in that its foreign borrowing is mostly denominated in its own currency. In general, if I borrow from you and the loan is denominated in your currency, then I bear the exchange rate risk, but if it is denominated in my currency, then you bear the exchange rate risk. Thus, China cannot easily reduce its exposure in dollar-denominated paper without damaging its own dollar reserves, and hence it is motivated to maintain the exchange rate. Then, if the prospect were simply a continuation of U.S. government deficits of 3,5 to 4,5 percent of GDP, it is likely that the major holders of dollars would actively resist speculative pressure on the dollar. What we would likely see instead is a continued slide in the exchange rate, a rise in long-term interest rates, and stabilization of the trade deficit. Such a Number in 5-year Cohort ('000) gradual adjustment would release pressure and avoid panics, but it would not be painless. The resulting shifts in terms of trade would disadvantage some emerging economies who are using exports to fuel economic development. For example, a weaker dollar would have a negative impact on U.S. tourism abroad, and on imports of agricultural products.



A much more serious issue in examining the impact of U.S. policy on the international financial system is the long term viability of U.S. government policy. The United States faces a demographic tidal wave beginning about 8 years in the future, as the large population cohorts born after World War II begin to retire and qualify for Social Security and Medicare. Figure 5 in which time is increasing back to front from 1980 to 2050, and age is increasing from left to right, shows the aging over time of the baby boom generation, and of their children who form a second, smaller wave on the left. The source of this figure is U.S. Census population projections, augmented by the author's calculations.

The aging of the baby boomers implies that the ratio of retired persons to those working will begin to rise sharply after 2012, nearly doubling by 2040, as shown in Figure 6. This “graying” of the U.S. will place heavy demands on health and retirement programs.

Figure 6
The Dependency Ratio
Ratio of Persons Aged 65+ to Working Age



Source: U.S. Census

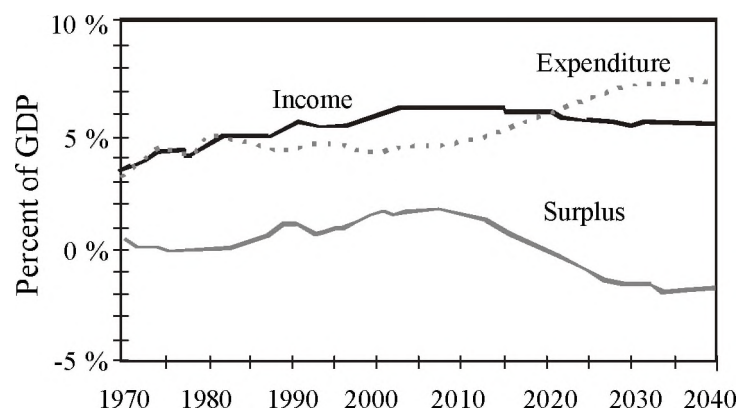
One feature of these demographic forecasts, and economic projections built upon them, is that they are relatively uncertain. Government policy needs to not only deal with the median impact of these demographic shifts on government

budgets, but also needs to be sufficiently robust to respond effectly to circumstances that could turn substantially worse.

Social security and Medicare are “pay as you go” entitlement programs in the U.S., with the cost of benefits to the current elderly bourne by current workers. The demographic transition implies a doubling of the burden on workers if it were to be funded solely from payroll taxes, which has terrible economic incentive effects and is probably politically unsustainable. As a consequence, the funding of these government obligations is likely to fall substantially on general government revenues, and produce major government deficits.

Figure 7 projects social security income and expenditures by assuming that the ratio of benefits per retiree to GDP per capita and the ratio of payroll taxes per worker to GDP per capita remain at 2002 levels. Thus, in the absence of increased payroll taxes or reduced benefits, the assets of the social security trust fund will begin to decline around 2020, leveling out at a deficit of about two percent of GDP.

Figure 7
Social Security
Income, Expenditure, and Surplus



The Medicare program provides health care for the elderly. Cutler and Sheiner project that the total cost of Medicare will increase from its current level of about 2.5 percent of GDP to 6 percent of GDP in 2040. In this same period, total health costs in the U.S. will rise from their current level of 15 percent of GDP to more than 20 percent, and by some estimates as high as 40 percent of GDP.

Figure 8 gives my own estimates of Medicare income and expenditures, based on regressions of the growth rate of dollars per eligible person on the growth rate of GDP per capita and a trend. These regressions show the program going into current account deficit in 2012, and the deficit widening to more than 4 percent of GDP by 2040.

Figure 8
Medicare
Income, Expenditure, and Surplus

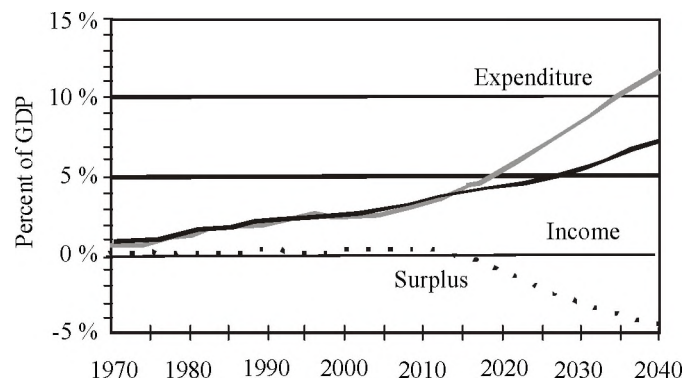


Figure 9
Medicaid, Medicare, and Social Security
are expected to rise rapidly (2000-2045)

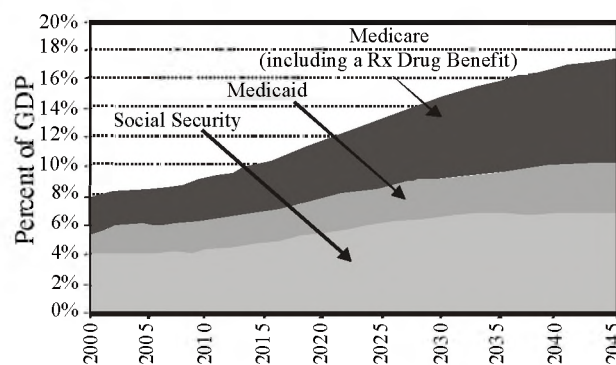
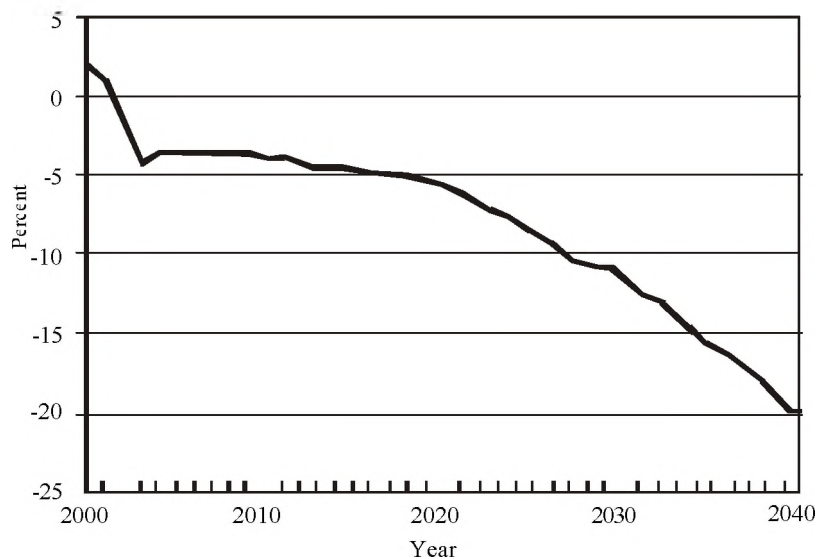


Figure 9 is a summary chart from the Concord Coalition, their Figure 10, that projects entitlement programs for the elderly, the Social Security and Medicare programs we have just discussed, and Medicaid, which provides medical care for the indigent. Their simulations indicate that these programs will expand from 8 percent to more than 17 percent of GDP as the baby boomers retire. As the previous detailed figures show, current tax rates on the relatively small numbers of future workers will fall far short of covering these government obligations.

Figure 10
Projected U.S. Government Deficit
As a Percent of GDP



Source: Concord Coalition

The combined effect of the projected deficits in Social Security and Medicare, added to the on-budget deficit which has little prospect of improving from its intermediate-term range of 3 to 5 percent of GDP, imply future government budget deficits that are clearly not sustainable. Simulations by the Concord Coalition, shown in figure 10, project a government deficit rising to 10 percent of GDP by 2025, and continuing to explode thereafter. These projections must be over-stated in the long term, as major changes in government fiscal policy, in tax rates, and in these entitlement programs to accommodate the demographic tide are inevitable. The current administration in Washington is making no serious effort to deal with

the looming failure of these entitlement programs, or to minimize the disruptions to its own economy and those of other nations. There is a high risk that social and financial turmoil will result, threatening the continued prosperity of the United States economy, and the stability of the globalized markets in which it is a key player. Every emerging economy should consider carefully its positioning in global markets, its exposure to risk from dollar volatility, and its dependence on exports to the United States, for protection from the tsunami that could come from a major upheaval in the U.S. economy in the next twenty years.

Further, these actions should be started now, because even though the most serious problems in the U.S. economy are still more than a decade away, financial markets are likely to trigger a crisis at the first evidence that the problems will not be worked out domestically.

The current management of the U.S. economy, and failure to plan for the looming generational crisis, provide a case study for every developing nation. This is how not to operate your economy if you seek the benefits of globalization while limiting the risks of financial crises and the resulting turmoil.

5. Risk management

The third broad area in which emerging economies can take actions that provide protection from financial crises is risk management. There need to be effective institutions to allow pooling of risks, both within and across borders. These might take the form of private or government insurance programs, designed with adequate controls to minimize moral hazard, tax policies that make speculative capital movements costly, or regional cooperative agreements on stabilization and exchange rate coordination.

Some of the things that can be done to reduce exchange rate risk are to require dollar-denominated loans to be linked to dollar revenue sources, to require a diversified portfolio of foreign-denominated debt, to match debt maturities to revenues for income-producing projects, and to require foreign lenders to assume some exchange-rate risk. The international market for finance will not offer these options for free, but a reasoned policy for an emerging economy is to pass up the cheapest and most risky financing in favor of alternatives with safeguards that lower the risk of future financial crises.

An important aspect of modern finance is the use of various financial instruments, including derivatives, to pool and hedge risks. Employment of these instruments is not for the unwary, but with due diligence, they provide ways to price out and pool risks. An example in the U.S. is the practice by Fannie Mae

and Freddy Mac, two government-chartered companies, of aggregating and reselling diversified portfolios of mortgages with specified risk attributes. This has greatly facilitated management of default risk in mortgage loans, and greatly expanded the size and reach of the market for owner-occupied homes. The operations of these companies are a model for how a government can design an Independent Debt Agency that has well-defined performance standards and provides qualification and monitoring of borrowers, risk pooling and diversification to manage currency and maturity risk, and concentration of resources and expertise in dealing with foreign lenders. An example is Ireland's National Treasury Management Agency.

It is also possible for governments to provide or organize the provision of more conventional insurance, such as deposit insurance. Careful design is needed to avoid two pitfalls, the moral hazard attached to being an insurer of last resort, when the insured may use the shelter of deposit insurance to engage in risky lending, without driving away depositors who are protected by the insurance, and the exposure problem that the insurer of last resort has unlimited liability.

Finally, it is possible for a government to use tax policy and direct capital regulation and control to manage the riskiness of foreign loan portfolios. Prior approval may be required for some forms of foreign borrowing, with qualification of lenders as well as borrowers, and restrictions on maturity and denomination of loans. Malaysia and the Philippines are economies that have used such controls. Taxes can be used to discourage short-term capital movements. Chile is an example. Capital controls have a down side, which is that they may reduce lender interest and interfere with efficient and timely investment. For a capital control or debt management board to work most effectively, it needs to function as an agent for borrowers, independent of government control except for well-defined performance standards for the risk characteristics of the loan portfolio it supervises.

6. Improving international credit arrangements

I have now discussed a variety of steps an emerging economy can take initiate on its own to protect itself against some of the increased risks that globalization brings. In addition, there are policies that countries can pursue jointly. First, major trading partners need to coordinate exchange rate policy, cooperating to resist speculative attacks and protect the reserve positions of the individual countries, avoiding unilateral or duelling devaluations or interest rate adjustments, and avoiding unilateral imposition of trade quotas or tariffs. In short, there needs to be a greater spirit of cooperation between government on trade matters. It is true

that trade is competitive, and everyone has their own interests. It is also true that there is great mutual benefit from commercial harmony.

Second, it is useful for countries to monitor international capital flows and utilize early warning systems to detect potential financial problems before they steamroll. The international community should require the same kind of transparency, consistency, and timeliness in public release of national account and banking information that it does in the operation of its stock exchanges. Such rules do not work perfectly, and stock market scandals occur. However, they are effective in discouraging many abuses, and forcing others into sight where they can be corrected.

Third, countries should be self-protective in their exchange rate policy, avoid taking risky positions for temporary advantage, and position themselves to weather speculative attacks. Managed floats invite speculative interest. Super-fixed exchange rates (dollarization or currency unions) across disparate countries are risky without strong authority at the currency union level to modulate cyclical fluctuations. For example, if the United States had supported the Argentinean peso in 2000-2001, as it did the Mexican peso in 1998, it is just possible that speculative capital flows could have been delayed long enough for the country to get its fiscal policy under control without the huge crisis it has encountered. Committing to a free float of one's currency, maintaining tight money to keep inflation under control, and maintaining adequate reserves to discourage tests of the commitment, has the best track record in terms of avoiding speculative attacks and crises. The small cuts and exchange rate risks associated with a floating exchange rate seem to be a reasonable price to pay to avoid major crises.

7. Conclusions

I have now completed my list of policies that emerging economies can take, individually, or with major trading partners, to protect themselves from risk of financial crises while taking advantage of the benefits of globalization, including trade promotion and liberalization of its financial markets. Inevitably, even with many protections in place, poor management or bad luck are going to sometimes get countries into trouble. My closing comments are on what the community of nations, and the international institutions they have established, can and should do to help out countries in trouble. The question is how to work out problems with the least damage possible to economies in crisis. Currently, international lenders treat crisis countries harshly, making them examples to discourage future defaults, and paying scant attention to the plight of their citizens. Often, the most intrasigent

lender can block restructurings that offer these economies reasonable workouts. The support provided by the IMF is often cold comfort, imposing crushing austerity as the price of a bailout. There seems to be some consensus that major changes in the practices of industrialized countries and international organizations might be desirable, but are unlikely to happen without concerted and continuing pressure from the emerging economies. These include conditions on the loan portfolios of private lenders requiring them to assume some exchange rate risk, accept “buy in” provisions, and diversify foreign loans by maturity and currency as well as destination. They also include reforms to introduce international depositor insurance, an international lender of last resort, or a global bankruptcy court. There need to be more ways than the IMF currently provides for countries to work their way out of crises. IMF policies are too much influenced by the United States government and the interests of the large international banks, and too little influenced by the collective interests of the emerging economies. The IMF should be reformed, and new institutions designed to help countries manage crises should be considered. I favor more open evaluation and forecasting of financial problems by international agencies, and due diligence requirements for private lenders. Better diagnostics may increase the number of problems detected, but force them to be corrected when they are still small. Regions such as Asia and Latin America should consider forming their own institutions to cooperatively insure their members. In the design of such institutions, either a revamped IMF or a new regional organization such as a Latin American Monetary Fund, the issue of moral hazard should be a major consideration. It is critical that the existence of insurance not be used to promote more risky investment programs, and this requires that any such organization participate effectively in prudential supervision of the financial institutions it insures.

In conclusion, I would point out that the design of resource allocation mechanisms always creates a tension between full decentralization that puts the incentives for productive behavior squarely on the participants, and market regulation to manage risk, control opportunistic behavior, and insure adequate outcomes for all participants. International capital markets currently exhibit some of the adverse consequences of insufficient regulation, and it is in the interest of all nations, industrialized and emerging, to redress the balance.

Nota

¹ The first version of this paper was presented at the Pacific Rim Economic Conference, Beijing, June 2001. The current Version was presented at the ANEC Conference on Globalization and Development, Havana, February 2004, and will be presented at the Westminster Development Conference, London, June 2004. This research was supported by the E. Morris Cox endowment. Research assistance was provided by Hui Tong.

References

- A. Auerbach and R. Lee (eds): *Demographic Change and Fiscal Policy*. Cambridge University Press, 2001.
- Concord Coalition: "Mid-Term and Long-Term Debt Projections," 2003.
- D. Cutler and L. Sheiner: "Demographics and Medical Care Spending: Standard and Non-standard Effects", in Auerbach and Lee: *Demographic Change and Fiscal Policy*. 2001.
- M. Feinstein (ed): *Economic and Financial Crises in Emerging Market Economies*. National Bureau of Economic Research, forthcoming, 2002.
- R. Eckaus, G. Feder, V. Hajivassiliou, D. McFadden, and S. O'Connell: "Is There Life After Debt? An Econometric Analysis of the Creditworthiness of Developing Countries", in J. Cuddington and G. Smith: *International Debt and the Developing Countries*. International Bank for Reconstruction and Development/The World Bank: Washington, D.C., 1985.
- V. Hajivassiliou and D. McFadden: "The Method of Simulated Scores for the Estimation of LDV Models", *Econometrica*. Vol. 66, No. 4, July, 1998.
- G. Kaufman: "Banking and Currency Crises and Systemic Risk: Lessons from Recent Events", Federal Reserve Bank of Chicago, 2000.
- L. Kotlikoff: *The Coming Generational Storm*. MIT Press, 2004.
- R. Lee and S. Puliapurkar: "Population Forecasting for Fiscal Planning: Issues and Innovations", in Auerbach and Lee: *Demographic Change and Fiscal Policy*. 2001.
- D. McFadden: "Population Forecasting for Fiscal Planning: Issues and Innovations: Comment", in Auerbach and Lee: *Demographic Change and Fiscal Policy*. 2001.
- M. Muhleisen and C. Towe (ed): *U.S. Fiscal Policies and Priorities for Long-Run Sustainability*. International Monetary Fund, 2004.
- R. Rubin, P. Orszag, A. Sinai: "Sustained Budget Deficits: Longer-Run U.S. Economic Performance and the Risk of Financial and Fiscal Disarray". 2004.