Chapter 2

BANKING POLICY

Utility maximization theory is one of the foundation models of economics. 2 According to this theory, people choose to maximize their personal benefit 3 subject to a budget constraint. If all people are given the freedom to choose, 4 they will each maximize their personal benefit, resulting in a maximum of 5 social well-being given the current income distribution. This theory works 6 best when applied to individual decisions that do not affect other people and 7 when applied to relatively short time frames. If what maximizes my utility 8 produces pollution that makes someone else sick, then social well-being 9 may not be maximized. Furthermore, since utility maximization is subject 10 to a budget constraint, how income is distributed will affect who benefits 11 the most from their choices and the total amount of benefit produced. These 12 are important issues, but the issue I want to focus on here is the time frame 13 used for utility analysis. 14

Utility theory implicitly assumes the time frame of the chooser. If the 15 chooser is addicted to crack cocaine and, thus, is only focusing on his 16 desperate need to get a fix in the next few minutes, then he will make 17 choices that maximize his benefit over the next few minutes; however, these 18 choices may not be in his long-term best interest. Indeed, in the long run, he 19 is likely to regret the choices he makes in the next few minutes. In contrast, 20 if someone focuses on a time frame that encompasses the remainder of 21 her life, then she will make optimal decisions for the rest of her life if her 22 assumptions about the future hold true. However, the future is uncertain, 23 as the world economic crisis that started in 2008 has well demonstrated. 24 Thus, someone who considers the time frame that encompasses the rest of 25 her life must factor in the uncertainty of the future. 26

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Most people get more immediate benefit from consuming their income 1 than from saving it (the miser who takes joy in his huge stacks of coin which 2 he will never use is the exception, not the rule). When most of us save, we 3 do it for the benefit of the person we will become. The fact that many of us, Δ as we get older, regret not having saved more in our youth, implies that our 5 younger selves either discounted our futures or made mistakes. The interest 6 rate is the price of the trade-off between the present and the future — it is 7 what the market says we should be paid for not consuming today so that 8 we can consume more in the future. The role of banks is to take money c from those who wish to save (and thereby earn interest) and give it to those 10 who want to spend more than their current income and are willing to pay 11 the going interest rate to do so. The market interest rate will be the interest 12 rate that equates the quantity of money that people want to save with the 13 quantity that other people want to borrow. 14

However, the previous statement ignored the gap between the savings 15 and lending interest rates that provides income for the bank. Most gov-16 ernments want their banks to finance the maximum amount of produc-17 tion expanding investment possible. Thus, these governments would like to 18 minimize the gap between savings and lending interest rates. In contrast, 19 banks want to maximize profits which can be achieved with a much larger 20 gap between the savings and lending interest rates than what the govern-21 ment wants. Theoretically, the gap between the savings and lending interest 22 rates should also reflect the short-term nature of most savings versus the 23 longer-term nature of most investments. 24

If there are so many banks that any one bank cannot affect the interest 25 rate (i.e., if the loanable funds market fits the economic model of pure 26 competition), then the gap between the savings and lending gap should be 27 as small as it possibly can be. However, financial liberalization, which has 28 swept over the globe in the 1980s and 1990s, has led to a tremendous con-29 solidation of financial institutions, moving the market further away from the 30 purely competitive ideal. Leightner and Lovell (1998) show that financial 31 liberalization in Thailand increased the ability of banks to increase profits 32 much more than it increased the financing of production increasing invest-33 ment. Financial liberalization does this in several ways — some of which 34 make it possible for banks to earn fees, move long-term investments off of 35

- their personal accounting books, and/or take advantage of other participants
- ² having imperfect information.

3 Financial Liberalization and its Consequences

In most countries, the number of financial institutions is falling while the 4 size and power of the remaining financial institutions is increasing. For 5 example, in 1984, there were 17,914 commercial banks or savings institu-6 tions in the USA; however, in 2012, the number had decreased to 7,083 for 7 a 60% decline (http://www2.fdic.gov/hsob/HSOBRpt.asp). Between 1996 8 and 2006, the number of banks has fallen from 80 to 43 in Argentina, from c 87 to 40 in Brazil, from 27 to 12 in Hong Kong, from 61 to 46 in India, 10 from 65 to 35 in Indonesia, from 148 to 124 in Japan, from 29 to 16 in 11 South Korea, from 34 to 21 in Malaysia, from 27 to 8 in Mexico, from 22 12 to 11 in Peru, and from 15 to 8 in Singapore. Meanwhile, the share of total 13 assets held by the three largest banks (the three-firm concentration ratio) 14 increased between 1996 and 2006 from 0.35 to 0.6 in Brazil, from 0.4 to 0.6 15 in Chile, from 0.65 to 0.85 in Hong Kong, from 0.35 to 0.55 in Indonesia, 16 from 0.25 to 0.5 in South Korea, from 0.55 to 0.65 in Mexico, and from 0.6 17 to 0.9 in Singapore (Olivero et al., 2009). 18

These changes have occurred in the context of the world embracing 19 financial liberalization — a reduction in the regulations and rules that gov-20 ernments use to monitor and control their financial institutions. Presum-21 ably, financial liberalization frees up banks to innovate, and the resulting 22 advances in technology are good for the entire world. The financial crisis 23 that began in the USA in 2007–2008 has led to this presumption being 24 questioned. The US Senate's Financial Crisis Report states that the crisis 25 was "the result of high risk, complex financial products; undisclosed con-26 flicts of interests; and the failure of regulators, the credit rating agencies, 27 and the market itself to rein in the excesses of Wall Street" (US Senate, 28 2011, p. 1). These "high risk, complex financial products" were devel-29 oped under financial liberalization and include CDOs (Collateralized Debt 30 Obligations), CDS (Credit Default Swaps), ABX (Asset-backed Securities 31 Index), and RMBS (Residential Mortgage Backed Securities Indices) — 32 all of which played important roles in the financial crisis. 33

Consider CDOs. When I purchased my house in the 1990s, my bank 1 told me that I could afford a house that cost three times as much. When 2 this revelation did not change my mind, the bank representative patiently 3 explained to my wife and I that Americans increase their net worth by Δ purchasing the most expensive houses that they can. We were told that 5 because all US houses were increasing in value, buying a more expensive 6 house would make me ultimately wealthier. The bank also informed us that 7 our mortgage might be sold on a secondary market. We insisted on buying 8 the house we had selected which cost one-third of our limit, and the bank c did not sell our mortgage on the secondary market. The bank knew our 10 mortgage was solid and that it was a good investment for the bank. 11

If, however, we had been persuaded by the bank to buy the most expen-12 sive house we could "afford," the bank probably would have sold our mort-13 gage on the secondary market. In this case, the more expensive the house we 14 purchased, the larger the fee the bank would get from writing our mortgage. 15 Therefore, the bank has a financial incentive to push home buyers into the 16 most expensive houses possible. Our mortgage could have then been bun-17 dled with other mortgages into a CDO. The mortgages in the CDO would 18 be layered and the different layers given different credit ratings and then 19 sold to investors. Theoretically, the bundling of many mortgages together 20 reduces the overall risk. However, in reality, banks had the incentive to 21 make loans to everyone, whether they were good risks or not, because the 22 bank earned the fees no matter how risky the loan. 23

Many of the mortgages included in these bundles did not even meet 24 minimum underwriting standards. Richard M. Bowen III testified to the 25 Financial Crisis Inquiry Commission that he was promoted to Business 26 Chief Underwriter for Correspondent Lending in the Consumer Lending 27 Group of Citigroup in early 2006 and that in this role he was in charge of 220 28 underwriters. By mid-2006, he discovered that 60% of the US\$90 billion of 29 mortgages going through his office were "defective" (not underwritten to 30 policy) and that this defective rate increased to "over 80%" in 2007 (Bowen, 31 2010, pp. 1-2). 32

The US Senate's Financial Crisis Report argues that US banks sometimes work contrary to their client's interests.

In the case of Goldman Sachs, the practices included exploiting conflicts of interest
 with the firm's clients. For example, Goldman used CDS and ABX contracts to

place billions of dollars of bets that specific RMBS securities, baskets of RMBS securities, or collections of assets in CDOs would fall in value, while at the same time convincing customers to invest in new RMBS and CDO securities. In one instance, Goldman took the entire short side of a \$2 billion CDO known as Hudson 1, selected assets for the CDO to transfer risk from Goldman's own holdings, allowed investors to buy the CDO securities without fully disclosing its own short position, and when the CDO lost value, made a \$1.7 billion gain at the expense of the clients to whom it had sold the securities In another instance, Goldman marketed a CDO known as Abacus 2007-AC1 to clients without disclosing that it had allowed the sole short party in the CDO, a hedge fund, to play 10 a major role in selecting the assets. The Abacus securities quickly lost value, and the three long investors together lost \$1 billion, while the hedge fund profited by about the same amount. (p. 319). 13

When lauding the virtues of free markets, economists usually assume 14 perfect information — the seller knows his or her true cost of production and 15 the buyer knows the true value of what he or she is purchasing. If there are 16 many buyers and many sellers in such a world (and several other assump-17 tions are also true), the market produces an efficient outcome. Clearly, the 18 preceding examples show that there is not perfect information in banking 19 and that some banks were seeking to earn a return from deception. The local 20 bank that makes a mortgage loan has the most complete information — that 21 bank knows the local real estate market, how different neighborhoods vary, 22 which neighborhoods are associated with the best schools, etc. However, 23 pre-crisis bankers ignored all that information because they could make a 24 fast dollar by pushing buyers to buy the most expensive house possible and 25 then selling the resulting mortgage on the secondary market to investors 26 who had no idea what the true risks were. What is the solution to this prob-27 lem? Some would argue for more regulation or more paper work; however, 28 a simpler solution that produces the best information is to make banks hold 29 on to all the mortgages they originate. In other words, make CDOs, RMBSs, 30 ABXs, etc., illegal. 31

The bigger the bank, the bigger and more complex the financial instru-32 ments it can create and the higher the fees it can collect. This results in bank 33 profits being positively related to the size of the bank. This, in turn drives 34 many mergers and acquisitions resulting in the number of banks in the 35 USA decreasing by 60%, as mentioned above. If these consolidations were 36 driven by cost savings, then they might be good for society; however, if they 37 are driven by returns to market power or returns from deception, then they 38

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are definitely bad for society. Leightner (2006) found that very small Thai 1 banks were able to provide loans and buy securities at a much lower aver-2 age total cost than large banks. This implies that there are diseconomies to 3 scale for banks in the provision of loans and securities, and, thus, relatively Δ small banks are best for society. Leightner (2006) points out that this result 5 is consistent with most empirical studies of banks around the world. His 6 study further shows the average price Thai banks receive increases much 7 faster than the average cost increases. Thus, he concludes that banks have a 8 profit incentive to get as big as possible, even though relatively small banks c are best for society. The reason that average price increases as banks get 10 bigger and bigger is that larger banks can earn more money off of fees, like 11 the fees earned by selling mortgages on the secondary market, and these 12 fees are more profitable than the making and holding of standard loans and 13 the holding of standard securities (the things that directly finance growth). 14

The notion that extremely large banks are "too big to fail" compounds 15 these problems. If a bank manager believes that his bank is too big to fail, 16 then he has the incentive to do extremely risky things that would pay off 17 with high profits if they succeed since, if they fail, the government will 18 bear the loss. In this case, the bank manager only considers the upside of 19 risks. Furthermore, the Thai case demonstrates that public trust in the entire 20 banking system is a "public good." If one bank breaks the public trust, then 21 customers tend to flee all banks in that country's banking system creating 22 a system-wide banking crisis (Alam and Leightner, 2001). Indeed, there 23 are some economic models of crises that are built on massive bank runs 24 (Diamond and Dybvig, 1983; Diamond, 2007). Clearly, the government's 25 goal of having a stable financial system that finances growth is inconsistent 26 with bank managers taking excessive risks because they believe they can 27 avoid all negative consequences due to being too big to fail. 28

All of the above analysis is already in the existing literature, which 29 is much more vast and detailed than what I have cited. This book's most 30 important contribution lies in its tracing these and other problems back to 31 a global surplus of savings. Why did the banking system create investment 32 funds like CDOs and its siblings? The answer to this question is the return 33 from investing in production expansion was less than the return from earn-34 ing fees from making risky mortgages and selling them on a secondary 35 market. Yes, the government needs to change the underlying structure of 36

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the US financial system so that the conflicts of interests and the deception
that played such an important role in the US banking crisis cannot happen
again. However, these types of structural changes are only addressing half
of the problem. The other half of the problem is why is the return from
investing in production expansion so low?

The return from investing in production expansion is so low because 6 the supply of loanable funds (savings) has increased as the rich get richer 7 while the demand for loanable funds has fallen because there is insufficient 8 consumption to provide a reason to invest the savings in ways that would c increase production. In such a world, savings seek a return from owning 10 things or from deception, like bundled mortgages, instead of from expand-11 ing production. Consider specifically how the global surplus of savings 12 affected the banking systems of Thailand, Cyprus, and Ireland. 13

14 Thailand

From 1986 to 1994, Thailand was one of the fastest growing countries in the 15 world, had successfully maintained a fixed exchange rate since November 4, 16 1984, and was a favorite country for foreign investment. However, by 1993, 17 the Thai government was very concerned because wages in Thailand were 18 rising while wages in Cambodia, Laos, Vietnam, Myanmar, and southern 19 China were not rising. Wages in Malaysia were also rising but not as fast 20 as Thailand's. The Thai government was concerned that Thai businesses 21 would move to neighboring countries in order to reduce their costs. 22

Although the Thai government's response to this concern may bewilder 23 many westerners, the ancient Chinese philosopher Confucius would have 24 applauded it. The Thai government decided to help its neighbors grow. 25 Top Thai officials organized meetings of government officials and business 26 leaders in the major cities of Thailand. I attended one of those meetings. At 27 the meeting, the Thai government told Thai businessmen that they wanted 28 Thai business to invest in Thailand's neighbors. The Thai government also 29 promised to do whatever it took to make such investment successful; it 30 offered to help with negotiations, to provide foreign exchange, to give tax 31 incentives, etc. At the meeting I attended in Chiang Mai, the Thai offi-32 cials suggested building gas pipelines from Myanmar to Thailand, build-33 ing dams and hydro-electric plants in Laos, and setting up manufacturing 34

plants in Vietnam and southern China. On the surface, it looks as if the 1 Thai government was encouraging exactly what they feared — Thai firms 2 moving to Thailand's neighbors where wages were lower. However, the 3 Thai government was actually trying to become the patron of Indo-China. Δ The theory was that if Thailand helped its neighbors grow, then Thailand's 5 neighbors would be obligated to be loyal to Thailand and not do anything 6 that would hurt Thailand. The whole region could grow together like one 7 big, happy family with Thailand in the lead. 8

A good patron also provides financing for growth. Thus, Thailand set c up the Bangkok International Banking Facility (BIBF) in 1993. The BIBF 10 in essence eliminated Thailand's capital controls (laws that restrict how 11 much foreign money can come in and/or go out of a country). The goal of 12 the BIBF was to attract large inflows of money from Japan, the USA, and 13 Europe which would be lent to Thailand's neighbors. However, interest 14 rates in Thailand were approximately 5% higher than they were in the 15 rest of the world and much higher than they were in Thailand's neighbors. 16 Consequently, the BIBF was able to attract huge inflows of foreign savings; 17 however, that savings preferred to stay in Thailand where its return was 18 higher (Leightner, 1999, 2007b). 19

More foreign savings came flooding into Thailand than could be pro-20 ductively used and speculative bubbles were the result. Jittrapanun and 21 Prasartset (2009) estimate that these bubbles resulted in excess supply in 22 relationship to market demand becoming 150% in iron and steel, 192% 23 in motor cars, 195% in petrochemicals, 200% in metropolitan Bangkok 24 housing, and 300% in private hospitals. When investors take out loans to 25 build factories, or houses, or office buildings that are far in excess of mar-26 ket demand, then they have difficulty selling what the investment produces 27 and, thus, they have difficulty re-paying their loans. A banking crisis is 28 the result. 29

In 1996, the Bangkok Bank of Commerce ran into some major problems that involved a political scandal, a major bank official stealing two suitcases full of money from the bank and fleeing to Canada, and a failed cover-up by Thailand's central bank. In the spring of 1997, Somprasong Land Company defaulted on a US\$3 million interest payment on some European Debentures. On March 3, 1997, the Thai government suspended trade of all financial company stocks and bonds on the stock exchange of Thailand, increased reserve requirements for all financial institutions, and
 shut down 10 weak finance and securities companies.

These events, as well as some others, provided the ammunition for з currency speculators, like George Soros, to launch a speculative attack on 4 the Thai baht. The Thai government's defense of the Thai baht consumed 5 most of Thailand's foreign reserves - Thailand's foreign reserves were 6 approximately 36 billion in December 1996 but were between 1 and 5 billion 7 on July 2, 1997 when Thailand gave up its fixed exchange rate. The Thai 8 baht fell from 25 baht per dollar on July 1, 1997 to 54 baht per dollar in c January 1998. On August 19, 1997, Thailand took out a US\$17.2 billion loan 10 from the IMF and the World Bank. The conditions that Thailand accepted in 11 exchange for the IMF/World Bank loan included the IMF's typical austerity 12 measures plus a promise not to rescue any more Thai financial institutions. 13

By May 1998, 56 of Thailand's 91 finance and securities companies 14 had been shut down and 7 more had been taken over by the government. 15 About 4 of Thailand's 15 commercial banks were also taken over by the Thai 16 government. In the course of taking over these financial institutions, the Thai 17 government fired all of their senior leadership and wrote down their capital 18 to 1/1,000th of its previous value. The Thai government also announced if 19 the remaining financial institutions did not get their non-performing loans 20 under control, then they would be treated in the same way. 21

Under this threat, bank managers decreased the amount of new loans 22 they made to almost zero. A severe credit crunch resulted. Many firms that 23 owed money to Thailand's financial institutions stopped paying on their 24 loans and started stock piling cash because they knew that their chances 25 of getting new loans was almost nil. This made the non-performing loan 26 problem of banks worse. Some borrowers leveraged the desperation of 27 banks to get their non-performing loans under control by asking the banks 28 for bribes, write-downs of part of the principle that they owed, and/or lower 29 interest rates. The resulting incidence of "strategic non-performing loans" 30 became epidemic. The Thai government rewrote Thailand's bankruptcy 31 code so that the bankruptcy process that previously took four or five years 32 could be completed in one year. However, the bankruptcy court that heard 33 the first major case under the new rules threw the case out of court because 34 the company was technically not bankrupt — they had the money to pay 35 back their loans, they just were not doing it. 36

The Thai financial crisis also led to the political rise of Thaksin 1 Shinawatra, massive street protests, a mob of protesters taking over 2 Bangkok's biggest international airport, a coup against Thaksin, more 3 protesters taking over the central business area of Bangkok, Thaksin's sister 4 being elected prime minister, and another round of massive street protests 5 in Bangkok as I was finishing this book in December 2013. In other words, 6 the consequences of Thailand opening its doors to the global surplus of 7 savings in 1993 were still being felt in Thailand in 2013, 20 years later 8 (Leightner, 1999, 2002a, 2002b, 2007b). c

10 Cyprus

Due to Cyprus' relatively low corporate tax rate and the strong legal pro-11 tections that come with being a European Union country, many foreigners 12 (especially Russians) put their savings into Cyprus' banks (Alpert, 2013). 13 This has led to Cyprus' banking sector being eight times the size of the 14 country's GDP; Cyprus' banks had more savings than domestic production 15 expanding investments could absorb. Therefore, these banks invested in 16 assets that would earn rent, like Greek government bonds. Apparently, as 17 the Greek economy fell into crisis and many foreigners were exiting Greek 18 bonds, Cyprus' banks were buying Greek government bonds because they 19 were bargain priced and because Cyprus' banks did not believe that the 20 European Union would allow the value of those bonds to decline. When 21 the values of Greek bonds were drastically decreased, Cyprus' banks were 22 severely damaged. Cyprus' financial sector accounts for 45% of Cyprus' 23 economy (Stevis *et al.*, 2013); thus, the entire economy was at risk. 24

The European Central bank, the International Monetary Fund (IMF), 25 and the European Commission proposed a tax on deposits under €100,000 26 of 6.75% and a tax of 9.9% on deposits above that limit. Cyprus' government 27 rejected this proposal causing much fear that Cyprus would be forced to 28 abandon its use of the euro. Ultimately, a deal was accepted that preserved 29 the total value of deposits under €100,000, but will cause much steeper 30 losses for deposits exceeding €100,000. How steep these losses will be 31 are currently unknown; however, some estimate that they will range from 32 60 to 100% (Jenkins, 2013). As a consequence of this crisis, most Cyprus' 33 businesses are now operating on a "cash only" basis (Persianis et al., 2013). 34

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Like Thailand between 1986 and 1996, Ireland was viewed as a great suc-2

cess before its crisis. Due to demographic factors, rising education levels, 3

and a surge in female labor force participation, Irish employment rose from 4

1.1 million to 2.1 million between the late 1980s and 2007. Meanwhile, 5 labor productivity increased and economic growth averaged 6.3% per year

6 between 1987 and 2007. 7

This exceptional economic growth allowed the Irish government to achieve a holy 8 grail that was the envy of politicians around the world: They lowered tax rates and raised public spending year in and year out and yet economic growth delivered 10 sufficient tax revenues to generate a string of budget surpluses (Whelan, 2013, p. 3)

However, a housing bubble funded by an inflow of European savings 13 destroyed Ireland's exceptional economic performance. 14

The first stage of establishing the European Monetary Union (EMU) 15 was to allow the free movement of capital between member states, and 16 this stage was to be implemented between July 1, 1990 and December 31, 17 1993. This free movement of capital allowed European savings to enter 18 Ireland causing mortgage interest rates, which prior to the EMU were in 19 excess of 10%, to fall to less than 5%. European savings sought out Ireland's 20 real estate market because of Ireland's economic success, growing popula-21 tion, rising incomes, and initial low per capita housing stock. According to 22 estimates made by Somerville (2007), Ireland had the smallest per capita 23 housing stock in the European Union as of 2000. As a result of these forces, 24 Ireland's housing prices quadrupled between 1996 and 2007; by way of 25 comparison, US housing prices only doubled during that time frame. 26

Ireland's total stock of houses grew from 1.2 million in 1991 to 1.4 mil-27 lion in 2000 and then to 1.9 million in 2008. After 2002, per capita new 28 house completions surged to four times higher in Ireland then they were 20 in the USA. Indeed, new "house completions went from 19,000 in 1990 to 30 50,000 in 2000 to a whopping 93,000 in 2006" (Whelan, 2013, p. 6). 31

After 2003, the rapid expansion of property lending was largely financed with 32 bonds issued to international investors. From less than €15 billion in 2003, inter-33 national bond borrowings of the six main Irish banks rose to almost €100 billion 34

(well over half of GDP) by 2007" (Whelan, 2013, p. 11). 35

In other words, what financed Ireland's real estate bubble was the global
 surplus of savings.

Whelan (2013) clearly sees the role that foreign savings played in
 Ireland's crisis; however, he places the primary blame for the crisis on
 Irish government policies.

Some in Ireland blame the low interest rates associated with euro membership for 6 the housing bubble and resulting crash. I think the weight of blame is better placed 7 on domestic fiscal and regulatory policy. While the authorities may not have been 8 able to do much about the low interest rates brought by euro membership, they had c the power to place limits on mortgage lending (limiting multiples of income or 10 requiring large down-payments) and to restrict the exposure of individual financial 11 institutions to property development. In addition, rather than "lean against" the 12 property bubble, Ireland's government provided a host of tax-based incentives 13 that encouraged property speculation (pp. 27-28). 14

Whether or not Whelan is correct in placing the primary blame on the 15 Irish government, my thesis remains unaltered. In the wake of these crises, 16 everyone is talking about how governments could have better regulated their 17 economies, and I admit that the regulation issues are extremely important 18 to address. However, no one seems to be talking about how the global 19 surplus of savings continues to plague our world and what should be done 20 to eliminate it. We need to fix the regulation issues and seriously address 21 the global surplus of savings. 22