
Indonesia's Slow Recovery After Meltdown

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Abstract

Although signs have emerged that some of the forces that caused the 1997–98 Asian financial crisis have begun to diminish and progress has been made in macroeconomic affairs, 10 years after the meltdown Indonesia's recovery is still among the slowest in Asian crisis countries. During the last few years, the relatively rapid growth of the financial sector (inadequately restructured) reflects the presence of excess liquidity and the sector's vulnerability. The slow growth of investment explains the economy-wide effects on the real sector and the stagnancy or deterioration of some social indicators. This paper focuses on two issues related to the slow recovery: the financial structure of lenders and borrowers that dampened credit, and the dismal performance of regional growth following the 2001 decentralization policy. There is some evidence indicating that agency costs have slowed credit and investment growth (credit channel), and that institutional constraints produced a lack of growth incentives among local governments. Efforts to raise the sub-national welfare post-decentralization have also been constrained by national policies such as a tight budget and the relatively conservative monetary policy despite the fact that they are not too effective at controlling inflation. The decomposition analysis also shows that an aggregate demand expansion would have been effective to stimulate growth.

1. Introduction

Since the Asian financial crisis (AFC), Indonesia has made some progress in macroeconomic affairs. The government made early repayments to the IMF, and corporate leverage ratios and currency mismatches have declined. However, the persistently growing excess liquidity combined with low investment makes the country's resilience to withstand shocks unclear. On the one hand, low investment fails to halt the rise of unemployment; on the other hand,

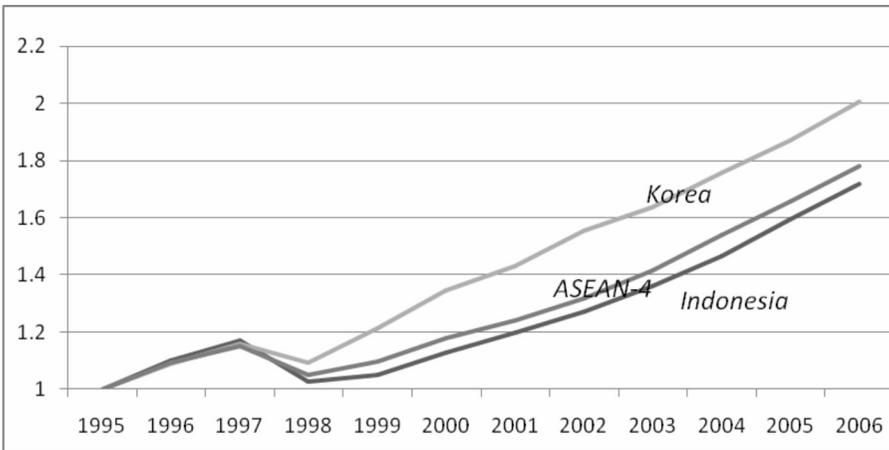
the high concentration of funds in the financial sector raises this sector's vulnerability. The share of short-term borrowing remains high especially among local corporations, and, as market volatility in mid 2006 has shown, the vulnerability associated with default probabilities and credit spreads is still high. Fears of a repeat of the 1997 crisis surfaced as capital inflows began to surge in 2006. Policymakers and pundits are quick to denounce the possibility, citing the floating exchange rate and the sizeable foreign reserves, unlike the conditions in 1997. Interestingly, however, forceful arguments rarely are made as to what happens with the strength of the corporate and financial sector.

Although inflows of capital are also faced by other East Asian countries, the challenge for Indonesia is compounded by the fact that its post-crisis recovery has been the slowest among those stricken by the AFC. Indeed, GDP growth since the crisis has been tepid. The comparative trend of the PPP-based GDP clearly shows that Indonesia's recovery has lagged behind those affected by the AFC (Figures 1a and 1b). Following a major policy change toward decentralization in 2001, the growth performance in many sub-national regions has been also disappointing.

The socio-economic repercussions of the slow growth (e.g., rising unemployment rate, poverty) are predictable, but the precise reasons are debatable. Certainly, conservatism in fiscal and monetary policy stands out. What has become the "menu of the day" among policymakers is to argue that non-economic factors such as weak legal framework, corruption, complicated bureaucracy, red tape, labor laws, and lack of awareness on the part of regional governments about ways to attract investors are all to blame. Arguments are even made about the adverse effect of democracy such as interventions by the parliament that caused delays and other problems in policy implementation. Although it is true that non-economic factors play a role, some explanations also originate in the economic policy. The latter could in fact influence the non-economic factors. What the economy needs during 10 years following the crisis is a real significant push. The government's budget, however, continues to lean toward tightness. Also puzzling is the conservatism in monetary policy until recently, despite the fact that it fails to lead the inflation rate to converge to trading partners' rates.

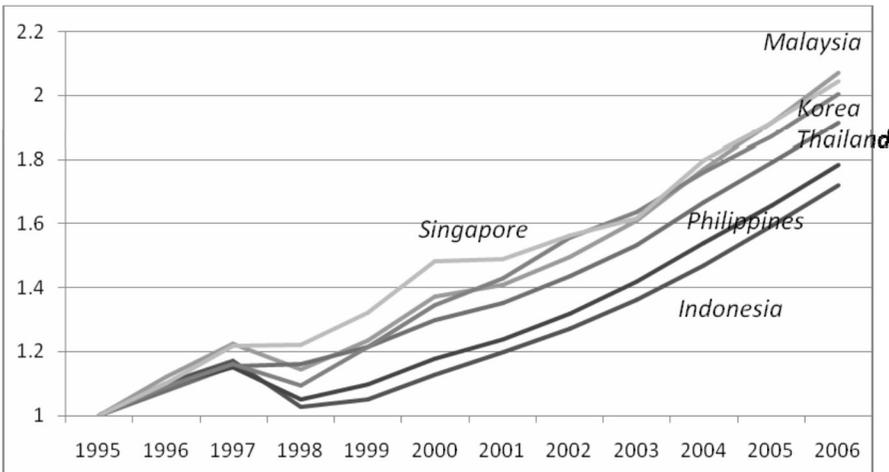
This paper explores the sources of Indonesia's slow recovery by focusing on two accounts: the slow growth of credit and investment, and the sluggish performance of regional sub-national economies that induced a disappointing national growth. On the first account, the role of agency costs is explored by simulating a financial general equilibrium (FGE) model that merges the balance sheets of agents with the real sector and the aggregate demand. A decomposition analysis of aggregate supply

Figure 1a. PPP-based GDP index (1995 = 1)



Source: Processed from IMF calculations of PPP-based GDP.

Figure 1b. PPP-based GDP index (1995 = 1)



Source: Processed from IMF calculations of PPP-based GDP.

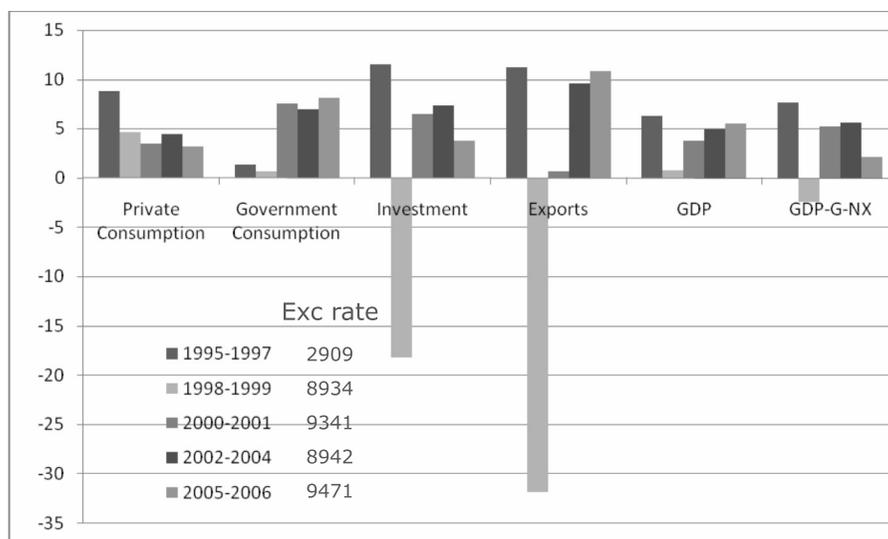
and demand is conducted in order to understand the policy implications of the slow recovery and high inflation more fully. It is revealed that the aggregate supply curve is relatively flat, suggesting that a positive shock of aggregate demand would have been more effective to stimulate growth, but less effective to control inflation. This is contrary to the implicit assumption reflected in government policies. On the dismal performance of regional growth, the discussion focuses on economic and institutional factors, particularly their role after the 2001 decentralization policy.

2. Post-crisis socio-economic performance

The post-crisis GDP growth in Indonesia has been less than 5 percent annually. Looking at the domestic demand, the 2002–04 performance produced the highest growth with accelerated rates of private consumption and investment. The exchange rate also strengthened. During the last 2 years, GDP grew faster but the rates of private consumption and investment (key variables for a sustained recovery) fell badly, and only exports and government spending rescued the overall growth (Figure 2). In the case of exports, favorable commodity prices and a weaker rupiah supported the surge, whereas the increase in government spending was driven by a series of natural disasters,¹ rising debt payments (especially the domestic debt), and regional decentralization.

This trend can be explained by the relationship between interest rates, credit, and investment during 2000–01, 2002–04, and 2005–06. At the early stage, slow growth was partly due to restrictive monetary and fiscal policies. The policy rate (Sertifikat Bank Indonesia or SBI rate, later known as Bank Indonesia or BI rate) rose to reach almost 18 percent in December 2001. Interestingly, the lending rates did not change much (two rates converged) such that real credit and investment continued to grow well. However, starting in early 2002, sluggish growth began, despite persistent declines in the SBI rates. The disconnect between the monetary and real sectors lasted

¹ Since the 2004 Tsunami, the country has been hit by several calamities, forcing the government to increase spending. Even assuming that there will be no more major disasters in the coming years, more spending is still needed to cover the damage caused by the mud-gushing disaster in East Jawa that started last year when a shaft probing for natural gas pierced a pressurized aquifer about 9,000 feet underground. About 1 billion cubic feet of mud has spread across two square miles, burying 12 villages and 20 factories, destroying thousands of houses and buildings, and damaging many infrastructure facilities and rice fields. No less than 15,000 people have been displaced, and the economic impact on the region (one of the most important provinces in the national economy) could be devastating. The estimated impact gets larger every day (in the trillions of rupiah). Since the company that caused this disaster (Lapindo Brantas) will unlikely cover the estimated damage, most spending will come from the government's budget.

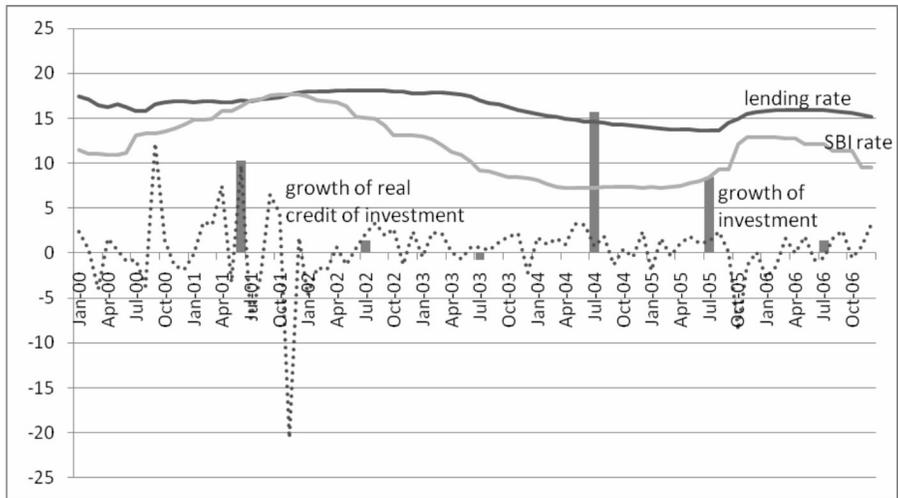
Figure 2. Annual growth of GDP and its components (percent) and exchange rate

Source: Author's calculation based on data from BPS and Bank Indonesia.

until mid 2004. During this period, the stickiness of the lending rate widened the gap between the lending and the SBI rates (Figure 3).² Real investment recovered only during the third quarter of 2004, but the trend did not continue. The credit growth remained sluggish despite the continued fall of lending rates until mid 2005.

Amid a falling investment rate and the slow growth of credit, the monetary authority raised the SBI rate. There was no significant pressure on core inflation, but the rupiah depreciated quickly reportedly due to the rising demand of imported oil by the state oil company Pertamina, which led to a surge in the dollar requirement. It is puzzling that the monetary authority continued to react to such a short-term exchange rate movement, despite the formal adoption of inflation targeting. The subsequent pressure came after the controversial policy to remove the domestic fuel subsidy in October 2005. Confident that the policy would have no serious socio-economic impact (which was not the case), the subsidy was slashed drastically, causing the domestic fuel price to surge by more than 120 percent. As expected, prices of other goods jumped, forcing the monetary authority to continue its conser-

² Note that during the first two quarters of 2003 the growth rate of investment was negative, and close to zero in the first quarter of 2004.

Figure 3. Interest rates and real growth of credit and investment

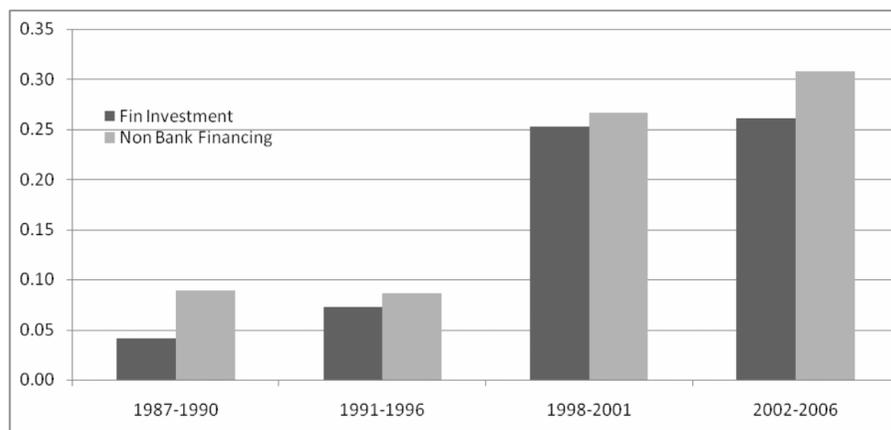
Source: Author's calculations based on data from BPS and Bank Indonesia.

vative stand. The episode demonstrates that despite the government's rhetoric, stimulating growth was not high on the priority list. Credit and investment fared poorly during 2005–06, restraining the already sluggish recovery process.

Low credit and investment occur despite excess liquidity. The increased number of financial assets and instruments available in the market, and the remaining uncertainties and difficulties in the investment climate have drawn the excess liquidity into financial assets. The Flow-of-Fund (FOF) provides a clear picture of this. As shown in Figure 4, based on FOF data the share of financial investment in total investment among business and household sectors has increased dramatically since the AFC. This explains the lackluster performance of investment in the real sector during the period. Figure 4 also shows that investment is financed increasingly through capital market and self-financing, not from bank lending.

Regional decentralization, which officially began in 2001, has also been blamed for the slow growth performance. As shown in Table 1, the majority of provinces experienced a declining growth trend during post-decentralization. The growth of total gross regional domestic product (GRDP, the regional counterpart of GDP) fell by almost half from 8.13 percent during 1993–96 to 4.84 percent in 2001–06. Some of the problems originate in national policies; others are within the jurisdiction of regional

Figure 4. Business and households' investment in financial assets, and non-bank financing (share of total assets and total liabilities)



Source: Flow-of-Fund, various years.

Note: Fin Investment and Non-Bank Financing consist of securities (short term and long term), shares, and equity.

governments (e.g., collection of unnecessary fees, misuse of funds, white-elephant projects, and widespread local capture).

With a dismal growth performance, the country's social conditions have either not improved or deteriorated. As shown in Figure 5, the falling trend of poverty incidences since 1999 was reversed in 2006; the number of poor has increased from 35.1 to 39.3 million.³ It is estimated that about 9.5 percent of Indonesians are chronically poor and 14 percent are transient poor. Disappointing economic growth has also caused the unemployment rate to rise. By 2006, the proportion of labor force who are out of work reached a record high—over 10 percent. On health conditions, measured by seven indicators including the life expectancy and infant mortality rates, Indonesia has been ranked lower than the Philippines and Vietnam. Access to clean water has declined, and access to sanitation remains low. With the deteriorating infrastructure and quality of education, the real benefit of rising enrollment rates becomes limited. Many, although not all, of the social indicators are related to income, hence economic growth. A recent multi-country survey found that 19 percent of Indonesian teachers were absent from the classroom, and the main reason for the

³ Based on March 2007 data, the poverty figure declines slightly, but the number of poor (37.2 million) remains higher than in 2005 (35.10 million). This confirms the devastating impact of the 2005 fuel subsidy cut on the poor.

Table 1. Pre- and post-decentralization GRDP annual growth rates

Provinces	Pre-decent	Post-decent	Provinces	Pre-decent	Post-decent
	growth 1993–96 (%)	growth 2001–06 (%)		growth 1993–96 (%)	growth 2001–06 (%)
NAD	1.74	2.67	Kalbar	9.25	4.54
Sumut	9.18	5.58	Kalteng	9.58	5.61
Sumbar	8.08	5.46	Kalsel	9.25	6.33
Riau ^a	4.76	3.94	Kaltim	8.00	2.27
Jambi	8.49	5.54	Sulut ^d	8.10	4.59
Sumsel ^b	8.26	5.08	Sulteng	8.51	6.90
Bengkulu	6.66	5.45	Sulse ^e	7.94	5.47
Lampung	8.51	5.04	Sultra	6.59	7.35
DKI	8.99	5.62	NTB	7.80	3.41
Jabar ^c	8.15	4.95	NTT	8.57	4.54
Jateng	7.19	4.87	Maluku	6.82	4.44
Yogya	7.91	4.52	Malukuta	5.23	4.31
Jatim	8.26	5.34	Papua ^f	14.19	0.04
Bali	7.86	4.41	Total	8.13	4.84

Source: Author's calculation based on BPS data.

Note:

a. Includes Kepri.

b. Includes Babel.

c. Includes Banten.

d. Includes Gorontalo.

e. Includes Sulbar.

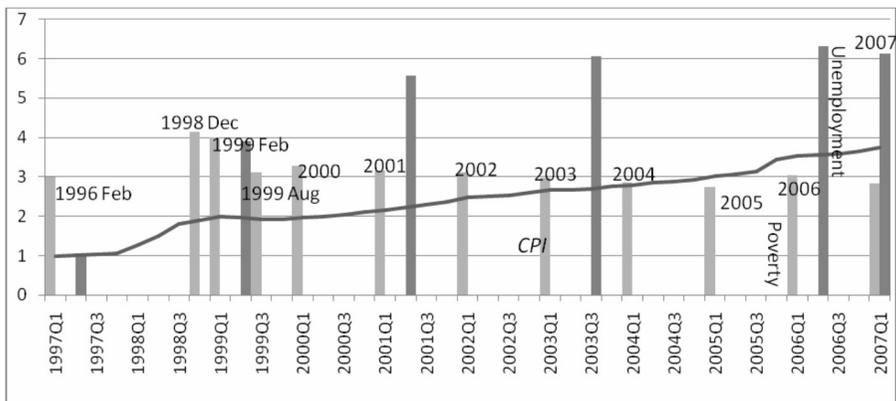
f. Includes Irijabar.

absenteeism is low salaries (World Bank 2007). Indonesian primary school teachers have to take up second jobs as they earn only half of what their counterparts in the Philippines and Thailand earn (in terms of a proportion of per capita GDP). Many of the environmental indicators also point to stagnancy or worsening conditions during the 10 years after the crisis.

3. Disconnect between monetary and real sectors

One of the features commonly shared by many East Asian economies during the last few years is excess liquidity. Indonesia seriously suffers from this predicament. Bank credit has been low but the financial market is flush with liquidity. The problem gets deeper as the interest rates remain relatively high, the government budget continues to be tight, and bank and corporate sector restructuring are inadequate. The macroeconomic policy continues to adopt a conservative approach using the aggregate demand (AD) policy to control inflation, and the aggregate supply (AS) to improve growth.

There was an episode (2002–04) when the interest rates lowered, albeit slightly, but credit and investment growth remained low (even until now). This led policymakers

Figure 5. Poverty (index: 1997Q1 = 3), unemployment, and CPI (index: 1997Q1 = 1)

Source: Processed from BPS data.

and analysts to question the effectiveness of expansionary monetary policy. Conceptually, the latter can be associated with the problem of credit allocation.⁴ It has been known that the fluctuations of credit growth are due to changes in the supply and demand for funds, both of which are influenced by the financial structure of lenders and borrowers. When firms are also lenders to other firms, frictions in the credit market are likely to amplify, propagating real and nominal shocks to the economy (Stiglitz and Greenwald 2004). In a principal-agent problem, the credit and investment cycle can be affected by a depressed firm's collateral value due to either falling asset prices, or a worsening firm's balance sheet caused by a double mismatch.⁵ Both can raise the agency costs imposed by asymmetric information between borrowers and lenders. In such circumstances, there is an incentive for borrowers to pass off risky or potentially bad projects as good projects to lenders. This can lower the probability that the loan is repaid, or raise the probability that the firm will go

4 The basic premises are: (1) credit, not interest rate, plays a central role in determining economic activities. The actual allocation of credit, however, is critically dependent on the judgments of lenders concerning the risk associated with borrowers, not on an auction market. (2) The presence of asymmetric information implies that there is a cost for acquiring information (agency cost) and this cost is sunk; thus, the credit market is inherently imperfectly competitive. (3) The relation between money and output is not necessarily stable (only some of the transactions are related directly to income and output generation), and the relation between the two is endogenous.

5 Like other Asian crisis countries, Indonesia suffered from double mismatches during the AFC. See Azis (2006).

bankrupt. Either way it will lead to a higher cost of external finance (higher interest rate).⁶

What if the balance sheet problem is located in the banking side (e.g., large holding of non-liquid assets or recap bonds), and there is a considerable size of non-performing loans (higher defaults)? In such a case, the collateral of financial intermediaries is likely to fall. This will force lenders to undertake portfolio reallocations that may result in credit rationing; that is, at any given interest rate fewer funds are made available.

The bank's balance sheet is depressed due to the high exposure of foreign debt and large holding of non-liquid assets (recap bonds). The expected increase of credit following the issuance of a huge amount of government bonds did not materialize. Instead, banks have greater incentives to hold central bank certificates (SBI), and are content with holding bonds and other non-risky assets to secure high capital adequacy ratio. The whole premise of the recapitalization program (i.e., bonds will eventually be converted into credits) did not materialize, and the firms' ability to invest declined.

All these hypotheses essentially suggest that credit and investment are sensitive to the net worth if agency costs associated with asymmetric information are present. This will not only propagate the initial shock to the economy but it can also make monetary policy ineffective. Hence, loan or credit is influenced by the net worth of borrowers, as well as lenders' asset composition and net worth:

$$CREDIT_i = s_i LBL_{ComBank} \left[\left(\frac{WEALTH_{Corp}}{(P_K K)_{Corp}} \right) WF_K \right]^{\mu_1} \left[\frac{B_{ComBank}}{AS_{ComBank}} \right]^{\mu_2} \left[\left(\frac{WEALTH_{ComBank}}{(P_K K)_{ComBank}} \right) WF_K \right]^{\mu_3} \quad (1)$$

where LBL is the size of loan-able fund, WF_K is the unit value of capital used to measure the value of agent's wealth; P_K and K are the price of and demand for capi-

⁶ The cost difference between external finance and internally generated finance is a measure of agency cost, which likely increases in recessions and decreases in booms. In a multi-period framework, the high rate of bankruptcy can be a consequence of high interest rates. The initial upward pressure on the rates may be independent of economic fundamentals or the underlying real event (it can simply come from the lenders' belief, e.g., through a coordinated signal that the economy—hence the project—has no good prospect and that the probability of bankruptcy is high). At any rate, the causality between the interest rates and bankruptcy can work both ways.

tal, respectively. The first bracket on the RHS reflects the balance sheet position of the corporate sector, the second denotes the proportion of bank's risk-free asset including recap bonds (B as a proportion of AS); s_i is positive constant, and $\mu_1, \mu_3 > 0$, and $\mu_2 < 0$. The last term on the RHS captures the bank's net worth. Thus, a depressed value of net worth leads to a lower amount of credit, so does a high proportion of illiquid asset in the lender's total asset.

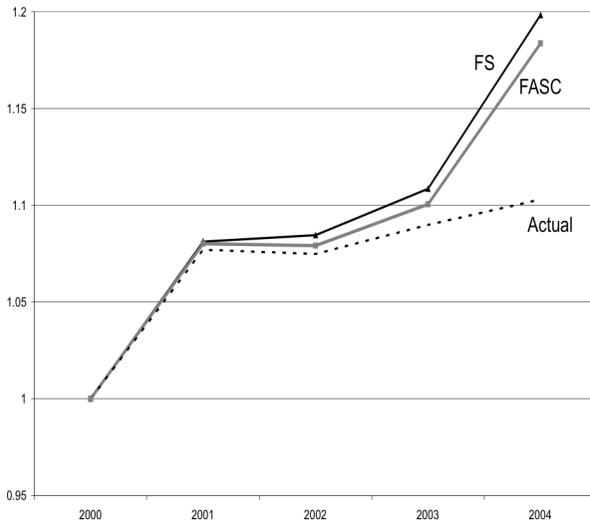
Given that the considerable amount of recap bonds and agents' balance sheets are still weak, this equation is consistent with the postulate of credit market frictions, in which interest rates do not necessarily perform as the equilibrating factor in the supply and demand markets for loans.⁷ To corroborate, this specification is used to simulate an FGE model that uses Indonesia's financial social accounting matrix (FSAM). Two scenarios showing with and without agency costs (financial sector with agency cost or FSAC, and financial sector without agency cost or FS, respectively) are compared. In the case of FS, the amount of funds made available by banks is found overestimated. The weak balance sheet reflecting the unfinished restructuring of the corporate sector has raised the agency costs imposed by asymmetric information between borrowers and lenders. This lowers the probability that the loan is repaid, or raises the probability of bankruptcy. Either way it will lead to higher costs of external finance. On the banking side, the large holding of non-liquid assets (recap bonds) and central bank certificates (SBI), combined with fears of higher non-performing loans may have affected lending behavior that caused fewer funds to be made available for loans at any given interest rate. Some banks translate this into higher lending rates while others simply undertake credit rationing. This agency costs component, absent in FS, plays an important part in FSAC.

Figures 6 and 7 show that by incorporating agency costs, the resulting estimates of credit and investment are much closer to the actual data. Thus, when Bank Indonesia lowered slightly the interest rates on SBI in 2002, such a policy was insufficient to stimulate credit.⁸ The fact that the loan rates under FSAC are higher than in FS, and that the actual loan rates did not decline as fast as the SBI rate (see again Figure 3) suggest that banks have been inclined to keep the loan rates high. Figure 8 clearly shows that the loan rates under the agency cost model are closer to the actual data

⁷ In these cases, the credit constraint is associated with the lender's decision and hence the supply curve for intermediated finance moves to the left. However, the demand side can also be an important explanation for real credit crises, one mechanism of which works through the corporate manager's decision not to invest especially when they believe that the depressed balance sheet can raise the bankruptcy cost.

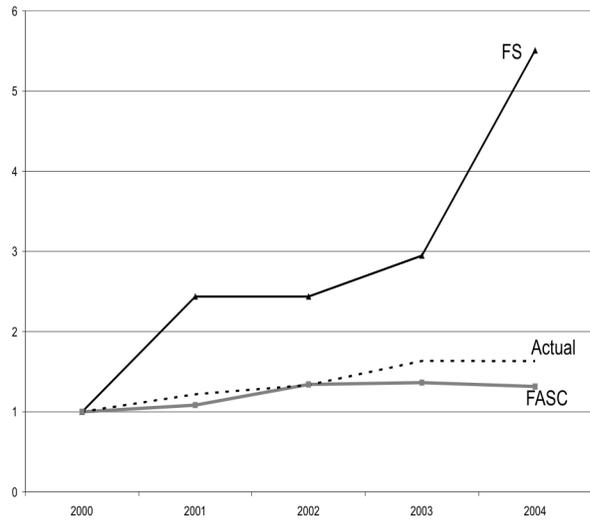
⁸ The yearly average of the exchange rate has actually strengthened—namely, from 9,595 rupiah per U.S. dollar in 2000 to 8,465 and 8,978 in 2003 and 2004, respectively.

Figure 6. Trends of real investment: with and without agency costs

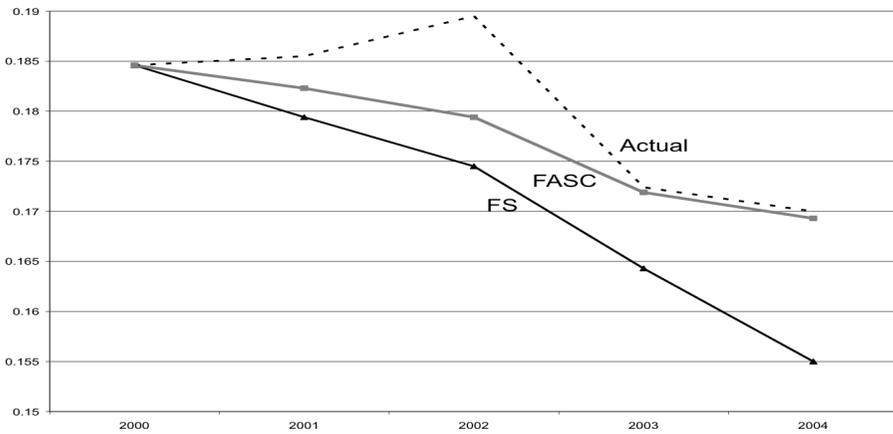


Source: Results of model simulations.

Figure 7. Trends of credits: with and without agency costs



Source: Results of model simulations.

Figure 8. Trends of loan interest rates: with and without agency costs

Source: Results of model simulations.

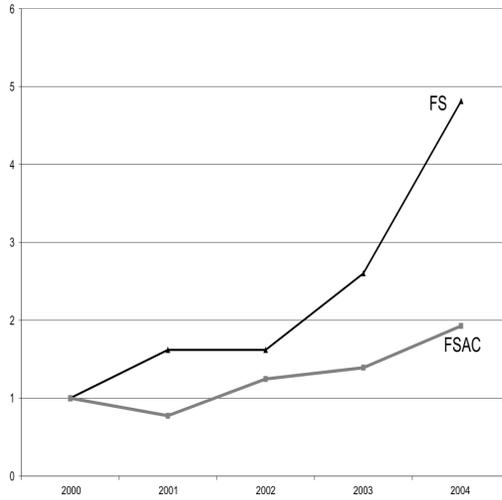
compared to those generated by the model without agency costs (a sensitivity analysis displaying the robustness of the model is shown in the Appendix).

To verify the role of agency costs, counterfactual simulations were conducted in which the policy-based (BI) rates are lowered from the actual data by 6 full percentage points in 2001 (a one-time shock). Imposing this scenario on FS and FSAC models reveals that the stimulating effect of lower interest rates on credit, investment, and GDP under FSAC is smaller than under FS (Figures 9 and 10). This is due to a combination of banks' behavior associated with the agency costs and different magnitude of the exchange rate effect on firm's investment that works through the changes in the balance sheet position.

Simulation results also show that the FSAC estimates of loan interest rates are higher, as is the unemployment rate. The gap between unemployment rates in FS and FSAC gets wider over time, implying that the cumulative error of using models that ignore the role of agency costs could be large, and the resulting unemployment rates will be underestimated.

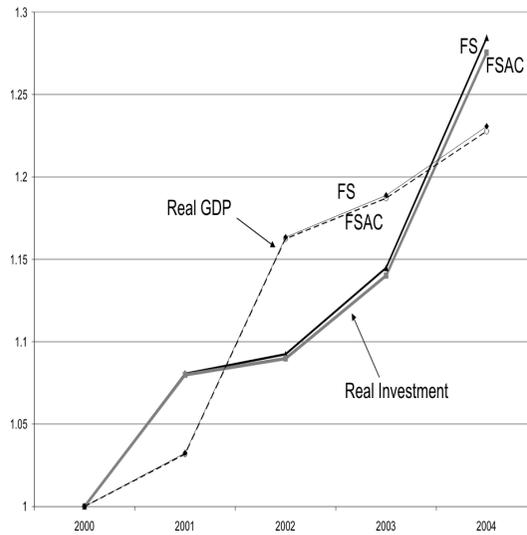
Thus, there is indeed some evidence that the supply and demand for funds in post-crisis Indonesia are influenced by the financial structure of corporate and financial sectors. The combination of continued high leverage and weak balance sheet of the corporate sector, asset prices that have not fully recovered, and the disappearance of known large investors may have raised the agency costs imposed by asymmetric in-

Figure 9. Trends of credit following a reduction of interest rate: with and without agency costs



Source: Results of model simulations.

Figure 10. Real GDP and investment following a reduction of interest rate: with and without agency costs



Source: Results of model simulations.

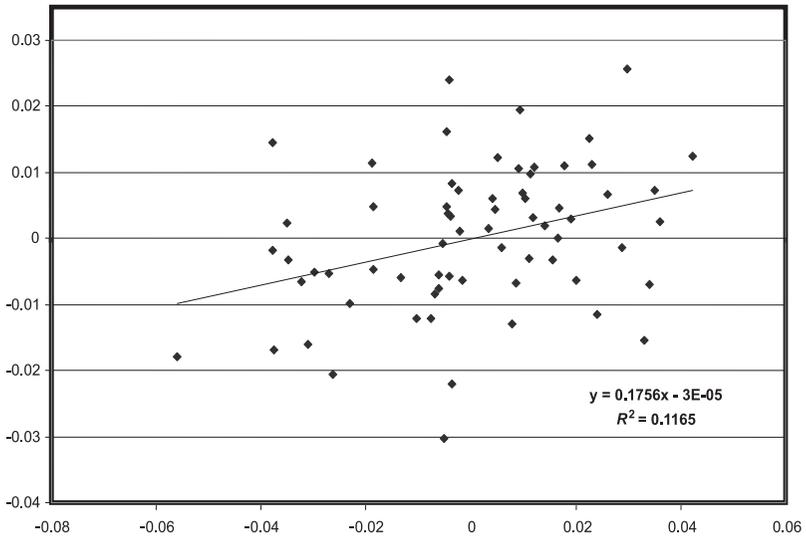
formation between borrowers and lenders. Along with a bank's large holding of bonds and SBI, this causes a leftward shift in both the supply and the demand curves for intermediated external funding. Under such circumstances, a relatively small decline in interest rates will be unable to raise credits and investment, as the "negative" financial accelerator counters the expansionary effects of the policy. Thus, with agency costs present, in order to stimulate growth the monetary policy needs a supporting push from other AD sources, namely, expansionary fiscal policy. The following analysis confirms the vital role of AD shock in Indonesia.

By decomposing AD and AS using the structure vector auto regression (SVAR) with restrictions à la Blanchard and Quah (1989) and Gamber (1996), the impulse responses show that, given the AD shock, no clear patterns of output and price relation are detected. The implicit slope of the AS curve is relatively small (0.1756) with low R^2 (0.1165; see Figure 11). A flat AS curve implies that controlling inflation through AD contraction is not always effective. On the other hand, the implicit slope of the AD curve, as shown in Figure 12, is large (-1.4075) compared to those in other Asian crisis countries (e.g., -0.0623 , -0.111 , -0.14 , and -0.29 in Korea, Malaysia, the Philippines, and Thailand, respectively).⁹

Hence, price changes in Indonesia are more sensitive to AS shock than to AD shock. Cost-push policies are more inflationary. The evidence from my visits to several regions, especially in the eastern part of Indonesia, supports this postulate. Many of these areas (islands) rely on basic goods and commodities transported from other islands. Disruptions in transportation due to either weather or technical problems quickly translate into higher prices. A deliberate policy such as a fuel subsidy reduction is another supply-side shock that easily raises inflation. Looking at the glass half-full, higher growth can be more effectively achieved through an AD shock; and such a policy is not inflationary. Thus, the recent trend of the softening of monetary policy is in the right direction, albeit rather too late, but the persistent tightness on the fiscal front is inconsistent with the AS-AD decomposition analysis. Expanding AD through budget is virtually non-existent since 2001 (the deficit never exceeded 2 percent of GDP, although the State Finance Law and Government Regulation 23/2003 prescribes that the consolidated national and local government budget deficits be limited to 3 percent).

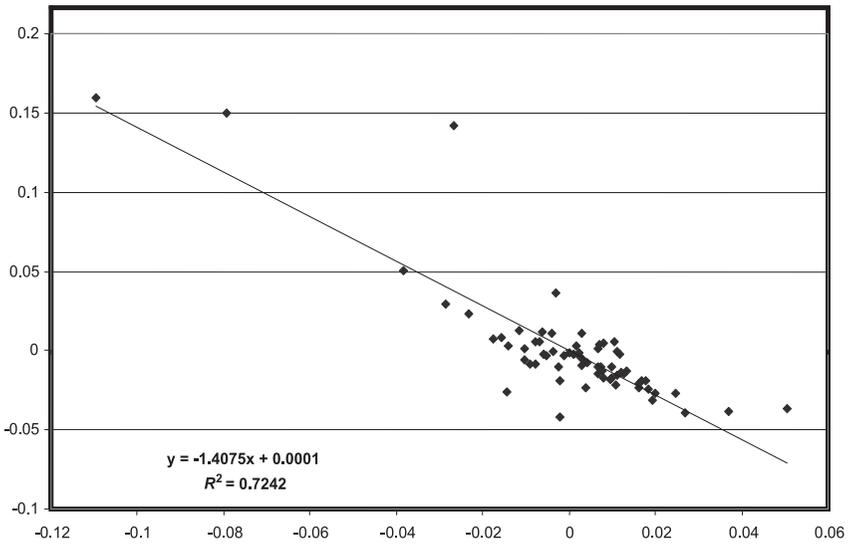
⁹ By generating the time series of output component (setting the supply innovation to zero) and the time series of inflation (setting the demand innovation to zero) due to AD shocks, it is revealed that the supply shock dominates output fluctuations, including the sharp fall in 1997. Similarly, the AS shock dictates price fluctuations. Compared to other Asian countries, the dominance of AS shocks in Indonesia lasted the longest.

Figure 11. AS curve: output growth and inflation due to AD shock



Source: Calculated by using Blanchard–Quah decomposition technique.

Figure 12. AD curve: output growth and inflation due to AS shock



Source: Calculated by using Blanchard–Quah decomposition technique.

It is generally argued that public expenditures can no longer be an effective source of growth, and, as part of the efforts to secure macro stability, a tight budget is needed to maintain low inflation and restore market confidence. The decentralization policy is also blamed for making things worse (e.g., low budget absorption at the local level). Although the validity of these is still questionable, the budget capacity for expansion has been increasingly constrained by rising debt payments, especially for the domestic debt. Indeed, what has changed dramatically in the debt composition since the AFC is the surge of domestic sovereign debt, beginning with recap bonds, followed by regular government bonds.

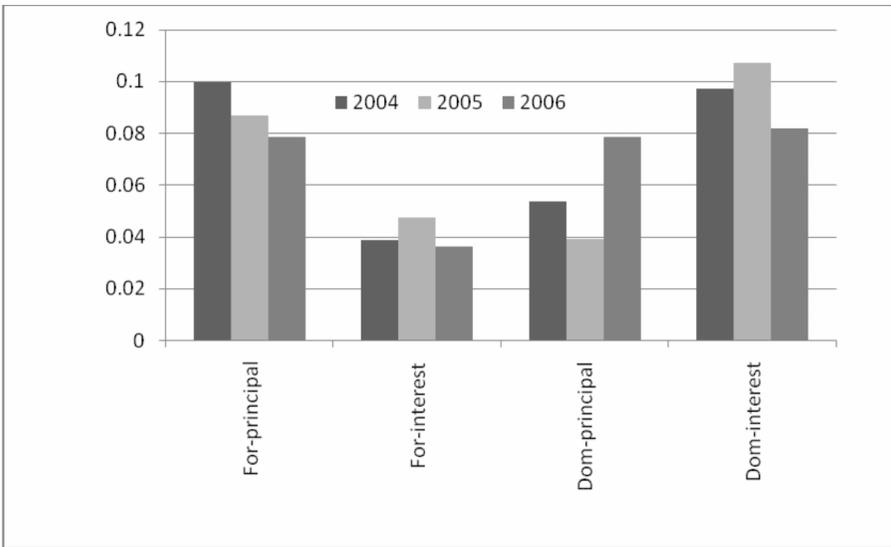
Measured as a share of central–regional transfers, interest payments for domestic debt reached 74 percent in 1999, exceeding interest payments for foreign debt. After 2001, as the central–local transfers surged following the decentralization policy, the share declined, and since then it has fluctuated. As some recap bonds started to mature in 2002–03, principal payments began to rise. Pressured by this mounting repayment, the government had no choice but to implement the following policies: buy-back program, re-profiling, debt switching, refinancing matured bonds, and reducing government's contingent liabilities.¹⁰ Even with these efforts, however, as a share of total development expenditures the principal payment for domestic debt increased sharply during the last 2 years, to reach a comparable level with the foreign debt payment in 2006. The interest payment for domestic debt, however, far exceeded the foreign payment (Figure 13). Thus, the domestic debt repayments that include recap bonds, especially their interest payments, have significantly reduced government budget capacity to expand. Along with the fact that recap bonds also remit perverse incentives for banks to extend credits (discussed earlier), and the re-profiling policy implies greater burdens of future payments, the management of recap bonds clearly needs to be re-examined, not only in relation to growth but also in the context of fiscal sustainability.

4. Regional growth and decentralization

As shown in Table 1, the slow recovery is consistent with the post 2001 decentralization trend of GRDP.¹¹ Six years may be too short to expect the full benefits of the policy. In addition, given the big-bang nature of Indonesia's decentralization, adverse

¹⁰ As far as the amount is concerned, the re-profiling scheme has been the most significant one. For example, at the early stage of the program the value of bonds held by one state-bank alone, Bank Mandiri, amounted to Rp 130 trillion.

¹¹ Post-decentralization growth is usually influenced by two important shifts: *regional shift* (less regional concentration), and *sectoral shift* (from economic production to social services and human capital formation, and to areas of greatest need).

Figure 13. Share of debt payments in total development expenditures

Source: Author's calculations based on data from the Ministry of Finance.

repercussions are numerous, and there is nothing unusual about it. The focus of this section is to analyze the sources of slow GRDP growth after decentralization.

International experience suggests that reasons behind diverse regional growth performances go beyond just policy differences. Institutional, political, and historical factors play a far more important role.¹² Certainly, efforts to reduce poverty would have been more effective in faster-growing regions than in poorer or slower-growing regions. The latter will have more difficulties to generate private sector jobs, and will generally experience greater growth volatility. On the premise that national growth is nothing but the summation of regional growth, it is of interest to understand the causes of regional growth deceleration.

¹² The case of China versus Russia has been used by some authors to clarify this point. China's regional growth accelerated during the post-decentralization policy, although the reverse was evident in post 1990 Russia. Unlike Russia, the initial rent holders and seekers were weaker in China because it started its transition from a low level of economic development such that the potential for local capture (e.g., by oligarchs) was more limited. Also, unlike Russia's transition, which came with the emergence of a partly dysfunctional democracy, China's transition has taken place under the tight control of the Communist Party with a strong position to reward local governments with "carrots" or to punish with "sticks" (Shleifer and Treisman 1999).

Many of Indonesia's post-decentralization problems are rooted in institutional constraint—more specifically, the lack of a pro-growth incentive system. Let p^s = probability that the local government stays in power if it fosters growth; and p^c = probability if it kills growth by intensifying the “local capture.”¹³ The latter could happen because local governments have had few incentives either to resist capture or to rein in competition for rents (e.g., Bardhan and Mookherjee 2002). Denote C for the benefits accrued to local officials through local capture; and R' for regional-own revenues, the size of which is determined by local rates that include both tax rates and other revenue collection rates, θ , and regional output Y' . The share of central government revenues (from additional growth) going to local governments is denoted by α . Thus, $\alpha.t.Y$ is the actual revenues received by local governments where $t.Y$ is the central government's total revenue determined by the revenue transformation rate t (e.g., tax rate) and the national output Y . In this context, how much the local government values growth is proportional to $\alpha.t.Y$. The central government can use α as the “carrot” in promoting regional growth.

Define $PROB = p^s/p^c$, the value of which depends on whether local officials are appointed or elected. If they are appointed, then presumably the central government can choose $PROB$ freely and make it as high as it wants. If they are elected, the outcome depends on the ability of the central government to affect the outcome of the election, through non-endorsement and non-support of specific candidates. Thus, the central government can use $PROB$ as the “stick.” If, however, the center has little control over the election outcome, and capture is important, $PROB$ may be less than unity, namely, the local government may be more likely reelected if it kills growth than if it fosters it.

Under the above specifications, local governments choose growth if $p^s.(\alpha.t.Y + R') > p^c.C$ or $PROB.(\alpha.t.Y + \theta.Y') > C$ (see Blanchard and Shleifer 1999)—that is, if the incentives for growth are higher than the incentives to obtain private benefits from local capture. Thus, local governments are more likely to choose growth when the “stick” is strong (high $PROB$), the “carrot” is large (higher α), national growth potential Y is high, and revenue generation t & $\theta.Y'$ is high.¹⁴ Efforts to lower the

13 The spread of *local capture* as a result of direct election for local leaders (*Pilkada*) raises the vulnerability of local government to capture by local elites, especially in regions with a high degree of income disparity. Because the possibility of power sharing between contesting parties is typically smaller at the local than at the national level, in general the likelihood of capture by elites is greater at the local level.

14 One could, however, erroneously imply that by raising θ , ceteris paribus, stronger growth incentives will be generated. In fact, in many cases the contrary holds: a higher θ deters investment flows that could reduce the growth of Y' . Thus, the level of Y' can be inversely related to the size of θ .

benefits of local capture, C (e.g., corruption, weak legal system, ineffective law enforcement), help to stimulate growth as well. One approach suggested by Handerson and Kuncoro (2004) is to create inter-jurisdictional competition for private firms that would limit the extent of local regulation. This approach is based on the premise that bribes by firms in Indonesia arise principally from regulations—licenses and levies—imposed by local government officials.

Because in Indonesia a fixed proportion of national revenues for regional development has been more or less set, a new fraction, say λ , may need to be introduced to allow the center to use it as a “carrot.” Thus, the following relation holds: $PROB.[(\lambda + \alpha).t.Y + \theta.Y^r] > C$. The regional growth variable Y^r can also be attached to λ so that stronger growth incentives are imposed: $PROB.[(\lambda(Y^r) + \alpha).t.Y + \theta.Y^r] > C$. The earmarked regional development fund, known as *dana alokasi khusus* (DAK), is α in the above relation, and λ is another instrument the center can create and use to motivate regional governments to foster growth. This yields the following *fundamental regional growth relation*: $PROB.[(\lambda(Y^r) + \alpha).t.Y + \theta.g(K_o^r(1 - \delta) + f(\theta))]] > C$. In Indonesia's post-decentralization period, $PROB$, C , and α have been low, and λ is nonexistent. Note that according to this relation a higher Y could help raise growth incentives at the regional level. Thus, slow GDP growth is consistent with a lack of growth incentives at the local level.

The likelihood of C being large is greater at the local level especially when the operational details (not just the functions) of what the region should do under the new decentralization law are either nowhere to be found or unclear. Although the tasks of the center and the province are clearly specified in law 22/1999, those of the region are not, making it difficult to evaluate the effectiveness of decentralization. Worse, no clear performance indicators are imposed on regional governments. As a result, controls on how local governments allocate their resources are virtually nonexistent. A case in point is the budget allocation at the local level where the health sector only receives approximately 7 percent, and in average about one-third of the total budget is spent on government apparatus (in some regions the latter constitutes more than 80 percent).

Although there are numerous problems at the local level, some national policies make efforts to raise local people's welfare even more difficult. National policies could have significant repercussions on a regional government's capacity to foster growth, which is seldom realized by the center. Some argue that expansionary fiscal policy will not work because local government's capacity to spend is relatively low (recently only two-thirds of the revenue increases could be spent). This is partly due to delays in central-regional transfers, and local officials being nervous about the

120 percent. Contrary to the government's original prediction, the socio-economic conditions throughout many regions deteriorated (see again Figure 5).

5. Conclusion

As the title suggests, Indonesia's recovery has been slow during the 10 years following the crisis. The socio-economic repercussions of it have been predicted (e.g., high unemployment and poverty), but the precise reasons of the tepid recovery are debatable. Non-economic factors such as a weak legal framework, corruption, a complicated bureaucracy, incompetent local governments, and labor laws have surely played roles. However, conservatism in fiscal and monetary policy also stands out. During the last few years, the rapid growth of the financial sector reflects the presence of excess liquidity and the sector's vulnerability, while the slow growth of real investment explains the unflattering trend of social indicators.

There is some evidence indicating that agency costs have slowed credit and investment growth (credit channel). Based on financial general equilibrium model simulations, where balance sheet data from the FOF are merged with detailed information of the real sector and the aggregate demand, it is revealed that the supply and demand for funds in post-crisis Indonesia are influenced by the financial structure of the corporate and financial sectors. The combination of continued high leverage and weak balance sheet of the sector, asset prices that have not fully recovered, and the disappearance of large borrowers have raised the agency costs imposed by asymmetric information between borrowers and lenders. Along with the bank's large holding of bonds and SBI, this made monetary policy less effective.

Under such a condition, a slight fall of interest rates will not be able to spur growth, unless it is supported by expansionary fiscal policy. The decomposition analysis indeed shows that an aggregate demand expansion would have been effective to stimulate growth and less inflationary. What the economy needed during the 10 years following the crisis was a significant push, yet the government budget continued to lean toward tightness. Also puzzling is the conservatism in monetary policy until recently, despite the fact that it fails to make the inflation rate converge with the trading partners' rate.

The slow recovery is also consistent with the dismal trend of regional growth after the 2001 decentralization policy. The latter has been due largely to a lack of stick and carrot and the absence of growth incentives among local governments, as well as to numerous incidences of local capture. Efforts to raise the sub-national welfare have also been constrained by local and national policies (tightness in macroeconomic

policy). National policies could have significant repercussions on regional government's capacity to foster growth, which is seldom realized by the center.

Looking ahead, with the current stronger foreign reserves, lower inflation, investment reform, better security, and more stable political conditions, the opportunity for a better performance in the next 10 years should be great. However, reform must continue and a less conservative macroeconomic policy needs to be implemented if the opportunity is to be realized.

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Appendix

The following sensitivity analysis focusing on credit is conducted by changing the values of μ_1 , μ_2 , and μ_3 in equation 1. In Figures A.1, A.2, and A.3, different levels of credit are measured on the vertical axis, and different values of μ_s are measured on one of the horizontal axes. The other horizontal axis denotes the year.

Figure A.1 shows that as μ_1 increases (greater sensitivity with respect to firm's net worth) credit increases. Such a relation persists during the period under observation

Figure A.1 Sensitivity of firm's net worth

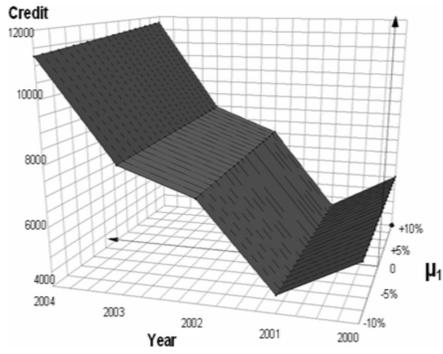


Figure A.2 Sensitivity of illiquid asset holding

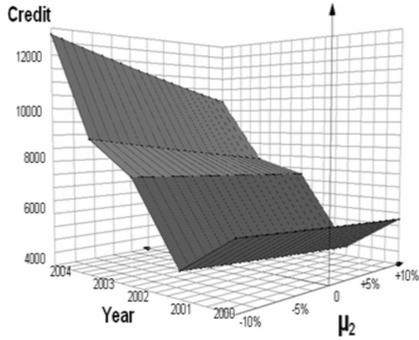
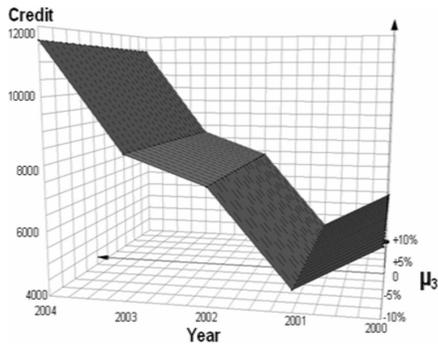


Figure A.3 Sensitivity of banks' net worth



despite the fact that at any given value of μ_1 credit declines in 2001. A symmetrically opposite result is detected when the value of μ_2 is raised (sensitivity of the share of illiquid assets held by banks), except that the magnitudes of credit change—a decline, in this case—are larger than in the earlier case (Figure A.2).

Testing the sensitivity of banks' net worth by raising the value of μ_3 gives a rather different pattern. During 2000–03, higher weight of banks' net worth leads to a larger amount of banks' credit. However, at the end of the period a larger μ_3 generates a *lower* amount of credit (Figure A.3). The incentives to hold non-risky assets appear to be larger when the lending behavior is very sensitive to the bank's net worth.