Comments on Rosengard and Prasetyantoko (2011)

April 28, 2011 Seiro Ito[†]

1 Summary of Rosengard and Prasetyantoko (2011)

- 2 questions (p.1):
 - Q1. Why is "access to microfinance services ... now declining"?
 - Q2. Why are "(M)SMEs ... now facing a credit crunch", despite "banks are liquid, solvent, and profitable, and the Indonesian economy has been doing quite well over the past decade"?

Authors seem to equate Q1 with Q2, hence focus on Q2 and do not come back to Q1.

• Answers:

- A1. Lack of competition and market power regulations for the sake of financial system stability.
- A2. Contractionary monetary policies.
- A3. Regulations set by BI that resulted in reorienting bank loans away from MSMEs.
 - a. Capital adequacy regulations \Rightarrow Narrower banks with low loan-deposit ratios.
 - b. Mandatory conversion of BKDs to BPRs \Rightarrow disappearance of traditional MFIs
 - c. Ineffective directed credit programs ⇒ State-owned BRI to lend at subsidized rates only to new borrowers ⇒ reduced profitability, disrupted dynamic incentives of borrowers

So banks are liquid and sound because of prudential regulations, and they are profitable because of lack of market power regulations. Both causes may also be the causes of the credit crunch felt by MSMEs. So bank soundness and profitability are made not to have strong causal relationship with their small MSME lending, be it intended or not.

- Authors recommend Bank of Indonesia to:
 - R1. Provide competitive environment, continue promoting sound risk management, but do not force banks to do anything, so banks can approach MSME loans market with caution.

 \Rightarrow [A3a, A3c]

R2. Allow nonbanks to operate and adapt current regulations for them.

 \Rightarrow [A3b]

2 Comments

Rosengard and Prasetyantoko (2011) presents discussions on current state of MSME loan supplies that is considered not to have met the need at the other end. The main culprit finger pointed by the authors is regulations set by BI, and authors note that, besides from being not competitive by policymaker's choice, banks are not to be blamed because they are merely responding to the regulatory and market environment. Authors have more faiths in competition and decentralized decision making than BI does. They recommend that BI needs to make market more competitive, and warn against the current policy in strengthening the command economy aspects in forcing MSME lending to the

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banks. As an economy in a dire need to upgrade technology in backward sectors and reduce poverty, the importance of MSME lending as a development policy cannot be overstated. The paper succeeds as a policy paper in summarizing its agenda, and is deemed to stimulate discussions from all the stake holders.

The strength of the paper is coverage of wide range of factors that need to be accounted in understanding credit crunch for MSMEs. In particular, reference to key regulatory changes is an important contribution to a relatively unstudied area of regulations and microfinance development. The paper maintains a classical rational decision maker assumption for banks, and reveals how regulations changed their incentives. The weakness of this paper is scant evidence of each factors that authors claim to have led to credit crunch. In analyzing the research questions, the paper may benefit from adding several components as evidence, which I will turn in below.

3 Presentation of the problem

3.1 Evidence of problem

Authors clearly state two research questions.

- Q1. Why is "access to microfinance services ... now declining"?
- Q2. Why are "(M)SMEs ... now facing a credit crunch", despite "banks are liquid, solvent, and profitable, and the Indonesian economy has been doing quite well over the past decade"?

Authors seem to equate Q1 with Q2, hence focus on Q2 and do not come back to Q1. Two questions are not identical, and Q2 is a subset of Q1. There may need some note on why they want to focus on Q2.

In addressing the problem, authors give macroeconomic indicators and previous survey summaries. However, the paper does not provide direct evidence that MSMEs are under credit crunch or its loan growth is stagnating, as Q2 claims. What needs to be shown is time-series evidence of total loans outstanding by banks, which should be readily produced with a combination of Tables 3 and 5.

3.2 Current MFI characteristics and possible reasons deterring credit supplies

In referring to Table 5, authors note that "loan portfolio of largest banks are dominated by large businesses and corporate clients". This cross-sectional snap shot may be observed in many countries and can be considered as natural, if large borrowers have smaller per rupiah transaction costs which generates substantial scale merits. In looking at Table 5, it seems natural to ask the following questions: With seventh, eighth, and tenth ranked banks also have most of their loan assets from small and MSME loans, why, besides from obvious scale merits and diversification needs, are smaller banks more likely to specialize in small loans? What, besides from scale merits or state ownership, deters large banks from engaging in small and MSME loans, while BRI manages to do so? Answering to these questions, especially to the second, can be important if we push for more competitive environment for MSME loans market. We need to know if small and MSME lending is as profitable as other lending, so we can rely on market forces to supply enough credits to these segments of economy.

3.3 Motivation

Paper does not provide an overview of existing literature on MSME financing. This makes it difficult for readers to assess the contributions of the paper. It is also necessary to motivate readers why this issue is important enough to draw attention. In short, it lacks an introduction section that we usually find in other research papers. This is clearly an unappealing aspect of the paper.

4 Reasons for credit crunch

4.1 Model

Authors point a variety of reasons for short supply of credits to MSMEs, ranging from monetary policies to regulations. It will be conceptually useful for readers if we can classify them according to an economic model. Bank i's supply of credits θ_{ij} to industry j can be written as:

$$\theta_{ij} = \theta_{ij}(q, r, \eta_{-i}, \eta_i), \tag{1}$$

where q is a vector for aggregate factors that affect all banks, r is a vector of relative costs and prices in supplying credits, η_{-i} is a vector of market power related variables (relative efficiency in supplying credits and obtaining returns) for all the banks except i, and η_i is a vector of i's market power. While this representation in (1) looks $ad\ hoc$, it can be derived from a class of oligopolistic credit supply models.*

4.2 Narrative approach

In their analysis, authors provide qualitative but not quantitative assessment of each factors. In theory, the problem addressed in Q2 can be quantitatively assessed by estimating loan supplies of each banks to MSMEs. To estimate loan supplies, (1) shows that one needs to control for these variables. In particular, it requires all banks' efficiency η in loan supplies to all industries to be controlled. This may be done with bank-industry fixed effects estimator, which requires a panel data for a reasonably long T. Lack thereof necessitates a researcher to follow a narrative approach like the authors do.

Even in a narrative approach, however, one should try to infer impacts of each factors with available data, by contrasting with and without, or before and after differences. Despite obvious shortcomings of these simple comparisons, they are still useful in providing leads to how one addresses these issues in a rigorous way. In what follows, I will list possible data exercises that can shed light into factors that authors raise.

^{*1} Suppose a bank has $j=1,\cdots,J$ borrowers to lend to, and takes marginal financial costs q as given. Assume there is no uncertainty nor information asymmetry for simplicity. Bank i has capacity η_{ij} in obtaining returns, and cost structure $c_i(r_j,\theta_{ij},\eta_{ij})+F$ where $\theta_{ij}\in[0,1]$ with $\Sigma_j\theta_{ij}=1$ is a share assigned to j in i's lonable fund and F is a fixed cost. It notices impacts on loan interest rates $p_j(\theta_{ij}|\theta_{-ij}k_{-i})$, where $\theta_{-ij}k_{-i}$ is a vector of all other banks' loan supply to j, and maximizes profit $\Sigma_j p_j(\theta_{ij}|\theta_{-ij}k_{-i})\theta_{ij}k_i-q\Sigma_j c_i(r_j,\theta_{ij},\eta_{ij},k_i)-F$ by choosing loan share θ_{ij} taking θ_{-ij} and loanable fund k as given. FOCs provide $p_jk_i+p_j'(\theta_{ij}|\theta_{-ij}k_{-i})\theta_{ij}k_i-qc_{i,\theta}'(r_j,\theta_{ij},\eta_{ij},k)=0$, which gives the loan share as $\tilde{\theta}_{ij}=\tilde{\theta}_{ij}(q,r,\eta_i|\theta_{-ij}k_{-i},p_j,k_i)$ where r is relative cost factors for all sectors, η_i is a capacity vector of the bank i for all sectors. At loan market equilibria, one takes others' actions as given, and supply function of i to j becomes $\theta_{ij}=\theta_{ij}(q,r,\eta_{-i},\eta_{-i})$.

4.2.1 Contractionary monetary policy

Authors' point on contractionary monetary policy is reflected in q. q will affect all banks and total volume of credits supplied to each sector of economy. But it is not likely to change market share outcomes among banks if q is additively separable, which can hold under appropriate functional forms given linearity of profit in q. Ideally, the credit crunch that authors are pointing out need to control for monetary policy stance, and then provide evidence that q does not decrease credit supplies to MSME disproportionately more than other sectors. This may be done by comparing loan supplies to other sectors in the economy, or comparing with other lenders that are not directly affected by reserve requirements.

4.2.2 Regulations

r, the relative costs in supplying credits, is affected by regulations set by BI. Authors point several of them, namely:

- (a) Establishment of concentrated but stable financial system with prudential regulations (API).
- (b) Compulsory conversion of BKDs to BPRs (Law 7/1992 on Banking and API)
- (c) Creation of KUR (Ministry of Finance Regulations No.135/PMK.05/2008 and No189/PMK.05/2010)
- (d) PKBL for state-owned enterprises (Ministry of SOE Regulation No.PER-05/MBU/2007)
- (e) A loan-deposit rate increase to achieve the minimum of 78% with a reserve requirement penalty (no citation)
- (f) MSME plan submission (Bank Indonesia Regulation No.12/21/PBI/2010)

These are telling arguments yet some lack necessary evidence. As authors argue, (a), such as capital adequacy and more cautionary loan loss provisions, is expected to shrink loans to MSMEs. But there may also be counteracting forces if financially viable banks mobilize more saving which provides larger loanable funds. The net effects will crucially depend on risk weights given to MSME loans and elasticity of saving to added security, and will be difficult to assess *a priori* without detailed information.

Authors indicate (b) had hindered BKDs' operational strength that led some banks to close and set $\theta_{ij} = 0$. While this may be so, the Law 7 on Banking was issued in 1992, well before the currency crisis of 1997. Therefore it is difficult to expect how this policy implemented in 1992 can be a significant cause of credit crunch *currently* felt by MSMEs. Even if that is the case, one can still show before/after and/or with/without conversion comparisons on MSME lending by comparing BKD's lending before and after conversion, or comparing converted and unconverted BKD lending. It may also show impacts of uncertain legals status of VMFIs and exit of at least 1/4 of GMFIs on VMFIs' MSME lending.

(c) "has not been very effective" as judged by the authors. But, in conjunction with (d), authors show that it has put pressures on BRI that new instruments they were made to offer at lower rates are eating up the existing customer base. The rates for smaller loans are curtailed by more than 10% points at minimum, and this should result in reduced revenues. As each branch of BRI runs independently, one can compare branches with new instruments with those without to examine its impacts, if data permits.

Predicted impacts of (e) is discussed as lowered bars in borrower assessment or added costs of loaning, both of which have implications on bank asset soundness across the board. Although authors refrain from conjecturing the impacts on MSME lending, it is suggested from the model that a general increase in loanable funds will not be likely to affect loan share θ_{ij} supplied to MSMEs, as it is another macroeconomic variation that can be captured in q. As for the impacts on NPR, one can observe how LDR and NPR move together in the past to extrapolate into current period, after controlling for reserve requirements and other macroeconomic variations.

Finally, nothing about a penalty is mentioned for (f), so *r* remains unchanged and it will not change loan supplies as in the case of (c). Preliminary assessment of (f)'s impacts may be accomplished by comparing banks with different Rupiah amounts in business plans, and see how actual lending follows accordingly.

4.2.3 Efficiency in loan supply

A vector $\eta = (\eta_{-i}, \eta_i)$ are indicators of relative operational efficiency (or comparative advantage) of banks in loan supply, and it is outcomes of physical infrastructure and innovative mechanisms to deter moral hazard and adverse selection, such as joint liability, dynamic incentives, frequent repayment schedule, etc. This is clearly not the focus of this paper, although authors do show elements that are considered to be in η , in evolution of numbers of branches, ATMs, BPRs, and other financial infrastructure. Credit crunch is not discussed under operational efficiency perspectives. η should be the most primitive variable that capacitates supplies of financial services to the poor and MSMEs. It will be interesting to know how regulatory regime changes affected distributions of η among banks. For example, conversion of GKD to BPR may discontinued lending practices based on joint liability. Or introduction of new instruments at lower rates in BRI may diminished dynamic incentives. Although it is difficult to quantify, any change in existing lending schemes should affect outreach and repayment rates.

4.3 Need for further research

While the reasons and discussions raised by the authors are insightful, serious assessment of each factors must be relegated to loan supply estimation. As discussions based on a narrative approach exhaust listing of possible factors, quantitative assessment with credible econometric methods can provide critical assessment on each factors.