Research Brief

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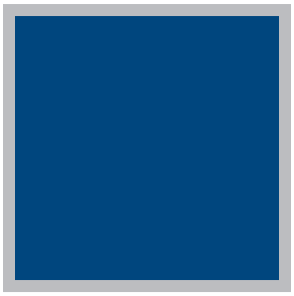
THE EFFECTS OF AN ECONOMIC CRISIS ON CONTRACEPTIVE USE

51%

The percentage increase of the price of contraceptive pills.



The economic crisis in Indonesia during 1998 had a minimal impact on contraceptive use.

Couples receive many health and socioeconomic benefits from having fewer children, and having access to modern contraception helps them to have the number of children they desire. To improve couples' access to modern contraception, governments and international organizations in many low-income countries distribute contraceptives either at subsidized prices or for free. Often, these subsidies account for a substantial portion of the public budget allocated to support maternal and child health.

But if subsidies are removed and prices increased, how would the price of contraceptives be affected?

Researchers Christopher McKelvey, Duncan Thomas, and Elizabeth Frankenberg examined the impact of a drastic change in prices and household resources on women's use of contraceptives.[1] Using survey data from the Indonesia Family Life Survey (IFLS), they found that:

- Large changes in the prices of modern contraceptives had little impact on overall contraceptive use in the Indonesian market, at least in the period immediately following the price changes.
- A significant decrease in household financial resources had a minimal effect on demand for family planning services in Indonesia.

The study suggests that reducing public subsidies for family planning services, which would push contraceptive prices up, may not reduce contraceptive prevalence in similar settings. Hence, phasing out subsidies for the procurement and distribution of contraceptive supplies might free up resources to cover other program costs. Such savings might also be used to target subsidies where they would have a larger impact.

The Effect of the Financial Crisis

Contraceptive Prices. Before the Asian financial crisis, which affected Indonesia in 1998, Indonesia had been on a path of rapid socioeconomic development and economic growth: From 1967 to 1997, the country's per capita gross domestic product (GDP) had increased by almost 5 percent per year.[2] During those three decades, fertility steadily fell from 5.9 children per woman to 2.8 children per woman, a decline that may be attributed to rising levels of education for women and girls, increased female labor force participation, increased average age at marriage, and a strong national family planning program (see Box 1, page 2). According to the 1997 wave of IFLS, almost 55 percent of currently married women in Indonesia reported using a modern contraceptive method. Half of these contraceptive consumers relied on the private sector, and one in six received contraceptives for free.

The financial crisis had a profound impact on contraceptive prices in Indonesia. While contraceptives remained available during the crisis, prices for contraceptives changed substantially as a direct result of the dramatic collapse of the Indonesian currency in the first few months of 1998:

- Costs of imported goods, including contraceptives, increased immediately.
- Domestically produced contraceptives became relatively cheaper in the period immediately following the collapse, although prices later escalated due to the rising costs of imported raw materials.
- The value of public subsidies for contraceptives fell, causing a general increase in the prices paid by consumers.

TABLE 1

Change in Median Service Charges for Pills (Oral Contraceptives), by Provider Type

	SHORT TERM 1997-1998	LONG TERM 1997-2000
All Provider Types (Public and Private)	**–Rp 570**	**+Rp 1,090**
Private Practice	–Rp 1,150	+Rp 520
Public Health Center	–Rp 540	+Rp 350
Public Health Post	+Rp 40	+Rp 780

Note: Data are retrieved from the IFLS surveys (see Box 2). All values are measured in 1996 Indonesian Rupiah.
Source: Christopher McKelvey, Duncan Thomas, and Elizabeth Frankenberg, "Fertility Regulation in an Economic Crisis," *Economic Development and Cultural Change* (forthcoming).

These effects are reflected in changes in the prices of contraceptives during and after the crisis. Oral contraceptives (pills), the most popular method among Indonesians, are largely produced domestically. After adjusting for inflation, the price of pills declined by 26 percent (Rp 570) during the first year of the crisis when domestic stockpiles were still available but then doubled in the following year as increasing costs for imported raw materials needed for pill production were passed on to consumers (see Table 1). Between 1997 and 2000, pill prices increased by 51 percent (Rp 1,090), and the price of injectable contraceptives, which were primarily imported as finished goods, rose by almost 10 percent (Rp 410) (see Table 2, page 3). These fluctuating prices significantly shifted the price difference between methods—pills became cheaper than injectables during the first year of the crisis and then became more expensive in subsequent years. In addition, as the public subsidy fell, the price gap between contraceptives at public facilities and at private providers narrowed.

Household Resources. The financial crisis had a noticeable effect on household incomes as well. On average, expenditures per household decreased 17 percent (by Rp 20,000) during the first year of the crisis. Between 1997 and 2000, household expenditures decreased by 15 percent.

How Might Demand Respond to Price Changes?

Given the sudden change in the prices of contraceptives in Indonesia, how might consumer demand for family planning respond? While many studies have attempted to determine consumer sensitivity to contraceptive price variations, pinning down the effect of a price change has proved difficult.[3] Contraceptive price is only one of the factors that affect demand for family planning. Fecundity, frequency of intercourse, child health and educational attainment, contraceptive method, timing and spacing of births, the ideal number of children, and economic resources are also likely to influence a couple's use of family planning. Moreover, the price paid for contraceptives includes more than just the cost of the product. Costs associated with travel to a health center, a family planning counseling session, and the time needed to provide services such as an injection, an IUD or implant insert are also determinants of the full "price" of contraception.

BOX 1

Indonesia's Family Planning Program

Managed by the National Family Planning Coordinating Board (BKKBN), Indonesia's family planning program is recognized as one of the most successful family planning and reproductive health programs in the developing world. A unique feature of the program is that unlike most government-run family planning initiatives, the BKKBN does not focus exclusively on delivering contraceptive services to the public. Instead, it acts as a central coordinating body to ensure that services from local, regional, and national providers are distributed effectively and efficiently. This decentralized community-based approach to family planning has often been hailed as the key to Indonesia's success.

Indonesia's family planning program supplies a wide range of modern contraceptive methods to consumers, including oral contraceptives (pills), condoms, injectables, implants, intrauterine devices (IUDs), and sterilization for men and women. Contraceptive methods that require a clinical setting and medical training to use (such as implants and IUDs) are distributed by both public and private health centers and hospitals, while methods that do not require medical assistance are provided by local pharmacies and community-based health facilities.[1] In addition to overseeing the supply of contraceptives, the BKKBN has also played a vital role in recruiting and training local family planning volunteers to educate couples about contraceptives and provide family planning counseling services to nearby villages and communities.[2]

References

1 Saptawati Bardosono, "*Puskemas* and *Posyandus*" (2010), presentation delivered at the University of Indonesia, accessed at http://staff.ui.ac.id, on Jul. 12, 2012. In Indonesia, community-based public health facilities can be effectively categorized into *puskemas* (primary health care centers) or *posyandus* (integrated health care posts). *Puskemas* aim to provide primary health services, including counseling and family health programs, at the sub-district level. In contrast, *posyandus* are village-based centers that focus on providing family planning and basic maternal and child health services for local women, couples, and children under age 5.

2 Elizabeth Frankenberg, Bondan Sikoki, and Wayan Suriastini, "Contraceptive Use in a Changing Service Environment: Evidence From Indonesia During the Economic Crisis," *Studies in Family Planning* 34, no. 2 (2003): 103-16.

TABLE 2

Change in Median Service Charges for Injectables, by Provider Type

	SHORT TERM 1997-1998	LONG TERM 1997-2000
All Provider Types (Public and Private)	**+ Rp 240**	**+ Rp 410**
Private Practice	+ Rp 210	+ Rp 200
Public Health Center	+ Rp 10	+ Rp 80
Public Health Post	+ Rp 80	+ Rp 640

Note: Data are retrieved from the IFLS surveys (see Box 2). All values are measured in 1996 Indonesian Rupiah.
Source: Christopher McKelvey, Duncan Thomas, and Elizabeth Frankenberg, "Fertility Regulation in an Economic Crisis," *Economic Development and Cultural Change* (forthcoming).

In the Indonesian study, the authors hypothesize that an increase in the price of contraceptives could have two possible outcomes:

- **Reduce the demand for contraceptives.** If consumers sense that the price increase reduces their ability to purchase contraception, the demand for contraception may diminish, especially when consumers are faced with a loss of income.
- **Leave the demand for contraception unchanged.** If consumers perceive that the costs associated with conceiving a child are relatively high and that they are able to continue budgeting for contraceptives, then demand for family planning will not be affected.

Minimal Impact

Based on comparisons of family planning behavior of the same couples before and after the Asian financial crisis, McKelvey, Thomas, and Frankenberg found that large variations in contraceptive prices around the time of the crisis had a minimal impact on overall contraceptive use in Indonesia. In particular, the decreased cost of pills and increased cost of injections had no significant effect on overall contraceptive prevalence or on method choice in the year following the crisis. In the longer run, from 1997 to 2000, the increased cost of both pills and injections had minimal effect on the contraceptive methods that consumers purchased.

As government subsidies declined between 1997 and 2000, the cost of pills rose substantially at public facilities, and the results do suggest that these increases were associated with a modest reduction in contraceptive use. Similarly, when private providers increased pill prices, consumers chose other available methods. In addition, there is evidence that the severe decline in household income was accompanied by a small increase in the percentage of couples using contraceptives, perhaps reflecting couples' increased need to postpone pregnancy and the increasing costs of raising a child.

Tables 3 and 4 (page 4) summarize how method mix and provider choice respectively evolved in the aftermath of the crisis.

Policy Implications

The financial crisis provided a unique opportunity to identify the consequences of price changes and a decline in household income on contraceptive use. In their study, McKelvey, Thomas, and Frankenberg found that, despite significant fluctuations in contraceptive prices and household incomes, demand for contraceptives and choice of methods changed only slightly in the year immediately following the crisis. Price changes between 1997 and 2000 affected contraceptive behavior, but the magnitude of the response was small. Increasing the costs of contraceptive methods or the costs associated with medical services needed to provide contraceptives did not introduce significant barriers to contraceptive use in Indonesia, and likely will not in similar contraceptive markets. At best, lower availability or higher costs for a particular contraceptive method may have resulted in a small decline in use of that method, a modest increase in uptake of other methods, and a negligible decline in overall contraceptive use during the study's timeframe.

These findings have important policy implications:

A reduction in public subsidies for contraception may not affect overall demand. It is important to note that Indonesia already had a mature, organized family planning program with well-established demand for contraceptives prior to the financial crisis (see Box 1, page 2). As a result, women and couples may have been better able to adjust to changes in prices by switching between oral contraceptives, injectables, and other available methods; and by switching between public- and private-sector service providers. In these circumstances, women continue to have access to contraception, but phasing out a subsidy also leads to competition among providers, which could improve service quality. More important, from a public policy perspective, a lower subsidy means that governments and public-sector funders spend less to ensure access to contraceptives and may reallocate some funds to program areas where they would have a greater impact. However, eliminating subsidies altogether might place too much of a burden on the poorest women and couples to pay out-of-pocket for contraception. As women are increasingly able to afford contraceptives, a steady reduction in contraceptive subsidies could encourage sustainable, self-sufficient practices and would also allow public-sector providers to focus efforts on other important health priorities. Consequently, funders and service providers must find the right balance in order to continue to make contraception affordable and available to women and couples who want to use it.

The private sector plays a vital role in the provision of family planning services. The Asian economic crisis was not only a tipping point for Indonesia's private family planning sector but also a test of its overall resilience.[4] The Indonesian government could no longer offer contraceptives for free or at minimal charge. Yet consumers did not forsake the contraceptive market

TABLE 3

Change in Percentage of Currently Married Women Using Contraceptives, by Method Type

	SHORT TERM 1997-1998	LONG TERM 1997-2000
Any Method	**+1.6**	**-0.1**
Pills	+0.5	-1.7
Injectables	-0.9	-1.5
Other Methods	+2.0	+3.1

Note: Data are retrieved from the IFLS surveys (see Box 2).
Source: Christopher McKelvey, Duncan Thomas, and Elizabeth Frankenberg, "Fertility Regulation in an Economic Crisis," *Economic Development and Cultural Change* (forthcoming).

TABLE 4

Change in Percentage of Currently Married Women Using Contraceptives, by Most Common Provider Type

	SHORT TERM 1997-1998	LONG TERM 1997-2000
Private Practice	+0.3	+3.6
Public Health Center	-4.6	-1.7
Public Health Post	+0.9	-1.3

Note: Data are retrieved from the IFLS surveys (see Box 2).
Source: Christopher McKelvey, Duncan Thomas, and Elizabeth Frankenberg, "Fertility Regulation in an Economic Crisis," *Economic Development and Cultural Change* (forthcoming).

altogether; they either purchased from public providers despite the decreased subsidy or obtained their method from the private sector. Indeed, the percentage of women obtaining contraceptives from the private sector increased immediately after the crisis and remained higher through 2000. Given the critical role of the private sector in supplying contraceptives, it may be worthwhile for key funders and stakeholders to work together to increase private-sector participation in key family planning policy and to identify opportunities for public-private collaboration.

BOX 2

Data and Definitions

All chart and figure data are retrieved from three IFLS longitudinal survey waves (2, 2+, and 3). Small differences are observed in estimates for 1997 used to calculate "short-term" and "long-term" changes. These differences occur because the 1997 samples of households are not identical. The short-term analysis uses data from households (1,378 women in total) interviewed in both the IFLS2 survey in 1997 and the IFLS2+ survey in 1998. The long-term analysis uses data from households (4,462 women in total) interviewed in the IFLS2 survey in 1997 and the IFLS3 survey in 2000. These differences occurred because the IFLS2 and IFLS3 surveys targeted the full sample of households, whereas the IFLS2+ survey gathered data from a representative sub-sample of about one-quarter of the households immediately following the financial crisis.

Estimates of service charges and expenditures are based on those reported by survey respondents.

"All facility types" refers to all public and private service providers who distribute the contraceptive in question, including hospitals, private practices, pharmacies, public health centers, and public health posts, among others. "Public health center" refers to sub-district or community health facilities (*puskemas*) while "public health post" refers to monthly, community-organized health outlets (*posyandus*).[1] Only the three most-common provider types (private practices, public health centers, and public health posts) are reported in the tables. Survey respondents may report using more than one type of provider.

Reference

1 Saptawati Bardosono, "*Puskemas* and *Posyandus*" (2010), presentation delivered at the University of Indonesia, accessed at http://staff.ui.ac.id, on Jul. 12, 2012.

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4 Taara Chandani, Barbara O'Hanlon, and Sara Zellner, *Unraveling the Factors Behind the Growth of the Indonesian Family Planning Private Sector* (Bethesda, MD: Private Sector Partnerships-One Project, Abt Associates, Inc., 2006).

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