

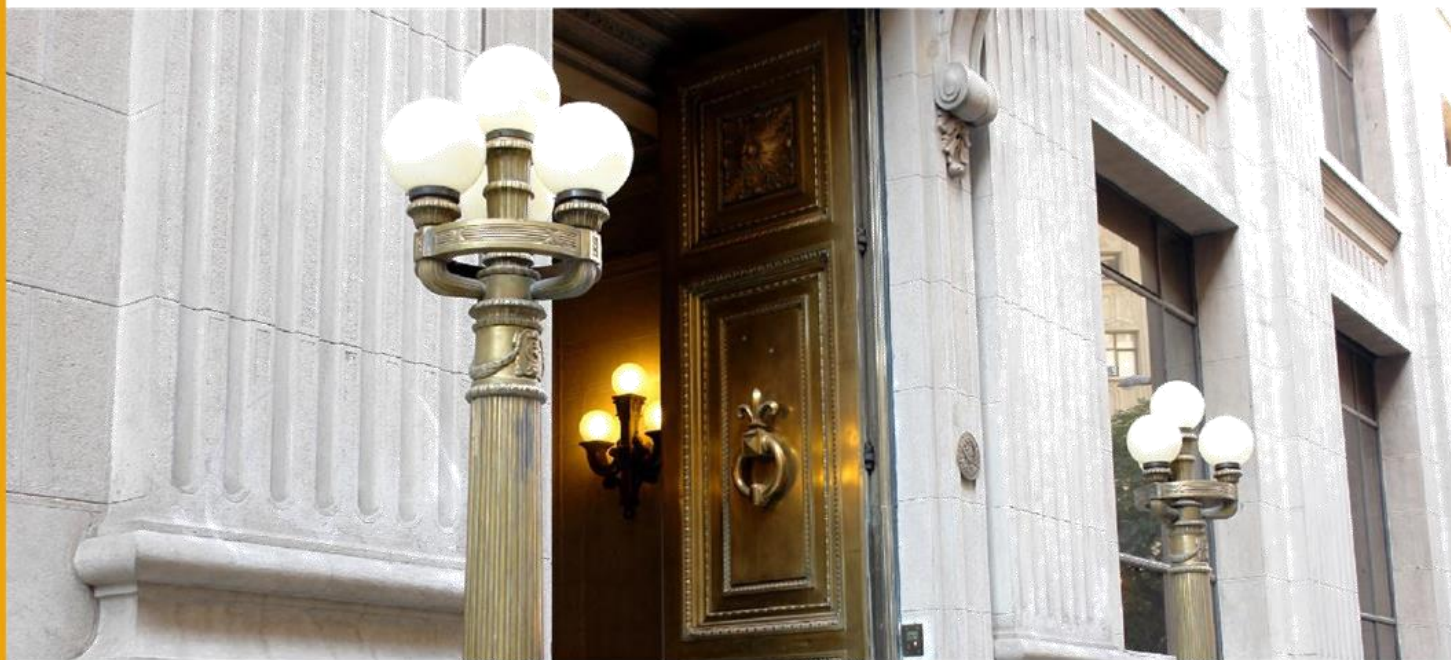
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The role of financial surveys for economic research and policy making in emerging markets

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Abstract

This chapter reviews the role of economic and financial surveys in the academic literature and policy-making, with a broad review of applications in emerging markets and developing economies. Surveys are increasingly used both in developed economies and emerging markets, providing information on a range of economic and financial phenomena, such as the updating of inflation expectations, the future economic outlook, the evolution of credit demand and supply factors, household balance sheets, plus behavioral biases and personal finance. These studies provide feedback regarding central bank credibility, the expected impact of monetary policy and financial regulation. Surveys also help to inform some common research puzzles in finance, such as the low financial market participation, unequal financial access, credit constraints and inaccurate economic expectations.

Resumen

Este capítulo revisa el rol de las encuestas económicas y financieras en la literatura académica y análisis de políticas públicas, con una revisión extensa de estudios en mercados emergentes y economías en desarrollo. Las encuestas son crecientemente utilizadas en las economías en desarrollo y mercados emergentes, providenciando información de diversos fenómenos económico-financieros, tales como las expectativas de inflación, la coyuntura económica, la evolución de la demanda y oferta de crédito y sus factores, las hojas de balance de los hogares, además de sus finanzas personales y sesgos de comportamiento. Estos estudios entregan información en relación a la credibilidad del banco central, además de las expectativas del impacto de la política monetaria y regulación financiera. Las encuestas ayudan a entender algunos enigmas de la investigación en finanzas, tales como la baja participación en los mercados financieros, la desigualdad en el acceso financiero, las restricciones de crédito y los errores en la formación de las expectativas económicas.

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1 Introduction

The characteristics that distinguish most developing countries and emerging markets, compared to industrialized economies, include: greater exposure to supply shocks, trade volatility, procyclicality of fiscal policy, illiquidity, plus lower credibility with respect to both price stability and default risk (Frankel 2011). The deep historical and cultural differences relative to Europe and North America lead many emerging countries to develop unique institutions to solve long standing financial problems, such as a high degree of foreign financial intermediaries (Claessens and Van Horen 2014), micro-credit (Banerjee et al. 2015), high penetration of mobile-phone financial intermediaries (Demirguc-Kunt et al. 2018), group lending such as credit unions, microfinance or cooperatives (Banerjee et al. 2015, Demirguc-Kunt et al. 2018), social and rural banking (Burgess and Pande 2005), and Islamic finance (Abedifar et al. 2015). Furthermore, the financial institutions in emerging markets have to deal with a different set of industries, such as agriculture (Karlan et al. 2014), exports and manufactures with older technologies (Frankel 2011), small and informal businesses (Banerjee et al. 2015) and commodities (Frankel 2011, Abedifar et al. 2015), therefore presenting a significant presence of non-banking actors including foreign banks (Claessens and Van Horen 2014), state companies (Cull et al. 2019), informal finance (Banerjee et al. 2015, Cull et al. 2019, Morgan et al. 2019), and fintech (Demirguc-Kunt et al. 2018). Besides Asia (Morgan et al. 2019), Africa (Allen et al. 2014) and Latin America (Williams 2012), the banking industry in Eastern Europe also had a recent development, with a process of consolidation through mergers and bank entry from multinational corporations (Goddard et al. 2019).

This chapter reviews the role of economic and financial surveys in the academic literature and policy-making, with a broad review of applications in emerging markets and developing economies. Historically, surveys in emerging markets have been applied in the extensive regions once related to the British colonial empire, with surveys and census of persons, firms and agricultural areas providing a source of information for business revenue and taxes (Levitan 2011). The implementation of firm and household surveys was further developed after World War II as a systematic process of collection of information on employment, income, savings, consumption and prices (Deaton 2019), with important policy applications such as the study of inflation, economic activity, inequality, housing, wealth, poverty and taxation (European Commission 2016, Deaton 2019). Surveys are

perhaps the oldest form of systematic information collection, being adaptable to both formal and informal economic activities. Therefore, survey information is particularly relevant for the study of emerging markets and developing economies, where informal business activity and hard-to-reach rural areas often escape the measurement of modern administrative datasets. Besides economic and financial research, surveys are also increasingly used in other related fields to measure political sentiment or population preferences. Political scientists are increasingly conducting survey research across the world, with cross national barometer surveys available in more than 130 countries and a large number of developing countries being represented on global projects such as the World Values Survey (Smith 2015). Individual researchers are also fielding original surveys across the developing world, no doubt buoyed by decreasing costs and improvements in local capacity (Banerjee et al. 2015). Indeed, the number of articles in which authors field original surveys from the developing world increased over the past decade (Banerjee et al. 2015, Lupu and Michelitch 2018).

Qualitative and quantitative survey data could be potentially important in forecasting, either on their own or in conjunction with other variables. Good forecasts will involve either the addition of survey data to time series models or the use of forecast combination techniques to combine forecasts arising from surveys with those generated by time-series techniques (Siklos 2013). Surveys make it possible to evaluate the impact of shocks, policies, and institutional changes on various groups of individuals. The availability of micro data for understanding the impact of shocks, policies and institutional changes is particularly important in view of the extremely large heterogeneity in economic behaviour of households (Eurosystem Household Finance and Consumption Network 2009).

In the next sections we review some of the most important areas of survey research and their importance for emerging markets, in particular, inflation expectation surveys, income and employment surveys, business and economic tendency surveys, loan officers' surveys, and household finance surveys.

2 Inflation expectation surveys and surveys of financial investors

Managing consumers inflation expectations is central to macro-economic models and monetary policy (D'Acunto et al. 2020). Assessing and improving the degree of anchoring of inflation

expectations are thus critical tasks for monetary policy makers (Kose et al. 2019). Central banks need direct measures of consumer inflation perception and expectations for modelling and forecasting (Arias and Kirchner 2019, Kose et al. 2019), the communication of monetary policy, understanding the formation of perceptions and expectations (Madeira and Zafar 2015, Kose et al. 2019), as well as in the assessment of central bank credibility (Łyziak 2013). Heterogeneity in consumers inflation expectations can generate over-investment in real assets and speculative behavior, impacting the economy's vulnerability to shocks (Kose et al. 2019). Furthermore, there is often "disagreement" and a dispersion of views even among financial analysts and professional forecasters about future inflation and the effectiveness of monetary policy, as evidenced in surveys for the Euro-area (Glas and Hartmann 2016, Siklos 2013), the USA (Madeira and Zafar 2015, Kose et al. 2019), Poland (Łyziak 2013) and other countries such as Australia, New Zealand, Canada, Japan, Sweden or Switzerland (Coibion et al. 2020, Siklos 2013). Finally, well anchored inflation expectations are an indicator of the communication and credibility of an inflation targeting central bank (Arias and Kirchner 2019, Goyal and Parab 2019). Surveys also inform about the consumers' attitudes and perceptions about inflation and the economic outlook (Ehrmann et al. 2017, Łyziak 2013). Therefore, one useful indicator is that surveys provide good information not just about the median or central tendency of the expectations, but also about how much disagreement and uncertainty there is around a certain economic scenario (Siklos 2013, Glas and Hartmann 2016, Madeira and Zafar 2015, Kose et al. 2019). Also, consumer sentiment helps forecast consumption growth (Faure and Medel 2020).

Indeed, national surveys of inflation expectations are now conducted in multiple countries, including emerging markets like Argentina (Faure and Medel 2020), Brazil (Campelo et al. 2019), Chile (Arias and Kirchner 2019, Faure and Medel 2020), India (Goyal and Parab 2019), Poland (Łyziak 2013), South Africa (Plessis et al. 2018), several European countries (Glas and Hartmann 2016, Siklos 2013), plus several developed economies such as Australia, New Zealand, Canada, Japan, Sweden, Switzerland, USA, UK (Coibion et al. 2020, Siklos 2013). Expectation surveys include households, consumers, firms and financial analysts or professional forecasters (Łyziak 2013, Coibion et al. 2020). Many countries, such as Argentina (Faure and Medel 2020), Chile (Arias and Kirchner 2019, Faure and Medel 2020), Brasil (Campelo et al. 2019), India (Goyal and Parab 2019), Poland (Łyziak 2013), South Africa (Plessis et al. 2018) and the US (Madeira and Zafar 2015),

have separate surveys for both consumers and financial analysts. Households' and firms' inflation expectations are on average higher and also more heterogeneous and volatile than the expectations of professional forecasters (Kose et al. 2019). Households' beliefs about past inflation are found to be a strong predictor of their inflation expectations (Madeira and Zafar 2015), showing a slower adjustment relative to professional forecasters' expectations (Madeira and Zafar 2015, Kose et al. 2019). In South Africa, inflation expectations differ between different income groups, gender and education (Plessis et al. 2018), with similar results being found in the USA (Madeira and Zafar 2015) and in Chile (Faure and Medel 2020). According to the Consumer Confidence Survey (CCS) conducted by the Reserve Bank of India (RBI), women, young people, less educated persons, plus families with low incomes and few earning members have higher inflation expectations (Goyal and Parab 2019), while occupation does not significantly influence expectations.

The empirical literature rejects the rational expectations hypothesis, showing that inflation expectations are forward-looking to only a limited degree, whether for households (Łyziak 2013, Madeira and Zafar 2015) or companies (Łyziak 2013, Coibion et al. 2020). However, causality between actual future inflation and current inflation expectations exists (Arias and Kirchner 2019, Łyziak 2013, Kose et al. 2019), which suggests these expectations anticipate the future to some degree. For instance, the inflation expectations of Polish consumers depend heavily on current inflation and its perception, which is sensitive to the changes in prices of frequently purchased goods, even if the overall consumer price index (CPI) is relatively stable (Łyziak 2013). In India, consumers with a positive outlook for employment and on general macroeconomic conditions have lower inflation expectations, while households with a positive outlook on spending (on both essential as well as non-essential commodities) have higher inflation expectations (Goyal and Parab 2019). Furthermore, information from TV news or other media plus inflation projections by the Reserve Bank of India play a pivotal role in influencing inflation expectations of households, with agents expecting inflation to be pro-cyclical (Goyal and Parab 2019). Media also play a fundamental role for inflation expectations in Brasil (Campelo et al. 2019), South Africa (Plessis et al. 2018) and the USA (Ehrmann et al. 2017).

A more recent literature is studying the inflation expectations of firms, with surveys in Canada, Czechia, EU, Iran, Israel, Italy, Japan, New Zealand, Poland, South Africa, Sweden, Turkey, Ukraine, USA, UK, and Uruguay (Coibion et al. 2020), with results rejecting rational expectations

and showing a sluggish adjustment of inflation expectations combined with very accurate forecasts for the firms' own prices, costs and activity.

Finally, inflation expectations surveys are often related to surveys about investment expectations (Gennaioli et al. 2015, Giglio et al. 2021) and investors' behavior such as equity trading (Burke and Hung 2015), with both households and professional forecaster surveys including asset prices' expectations as well (Souleles 2004, Madeira and Zafar 2015). CFOs' expectations of earnings growth are highly predictive of their firms' investment plans and ex-post investment levels (Gennaioli et al. 2015). Using a subjective expectations survey dataset, Giglio et al. (2021) establish five facts useful for macrofinance models: 1) beliefs are reflected in portfolio allocations, varying significantly with investor wealth, attention, trading frequency, and confidence; 2) belief changes do not predict when investors trade, but conditional on trading, they affect both the direction and the magnitude of trades; 3) beliefs are mostly characterized by large and persistent individual heterogeneity, with demographic characteristics explaining only a small part of individual sentiment; 4) expected cash flow growth and expected returns are positively related, both within and across investors; 5) expected returns and the subjective probability of rare disasters are negatively related, both within and across investors.

A major part of the research efforts in asset pricing are devoted to understanding how investors form beliefs. Asset prices express investors' beliefs about the future. Our understanding of how investors form these beliefs, how they evolve over time, and how we can measure them is still limited. Empirically grounded research on investor beliefs holds promise to unlock some of the mysteries of asset pricing. Forecasts of earnings and dividends by analysts (De la O and Myers 2021) and CFOs (Graham and Harvey 2011) are a start, but there is more to be done. Collecting more data on long-run expectations would be useful. Much of the current expectations data is focused on short horizons such as one year. Asset prices, however, depend on expectations over much longer horizons and more research on the connection of beliefs and actions is needed.

3 Income and Employment surveys

Income and employment surveys are the most important source of information for official unemployment (UNU-WIDER 2013), poverty (Deaton 2019), labor market activity and income, especially in

emerging markets and the developing world (International Labour Office 1990, UNU-WIDER 2013).

Labor earnings represent the most important source of income for households. The volatility of labor earnings is important to study a variety of topics, including poverty, earnings inequality and its persistence (Krueger et al. 2010), life-cycle consumption, the optimality of households' asset portfolios, and the welfare effects of social insurance schemes (Attanasio and Weber 2010). In the developing world income inequality is much larger than in developed economies (UNU-WIDER 2013), while social insurance nets such as unemployment benefits, food programs, disability support and health protection are weaker (Cho et al. 2012). Therefore, knowing the volatility of income and the persistence of negative shocks is of much higher importance in developing countries. Annual surveys with information on income and employment status are available for 61 countries, including all the 34 members of the OECD and 27 developing economies (Madeira 2015, UNU-WIDER 2013). This list includes at least Argentina, Armenia, Azerbaijan, Belarus, Bolivia, Brazil, Bulgaria, Costa Rica, Dominican Republic, Ecuador, El Salvador, Honduras, Kyrgyz Republic, Latvia, Lithuania, Macedonia, Moldova, Panama, Paraguay, Peru, Romania, Russia, Serbia, Taiwan, Ukraine, Uruguay, and Venezuela.

It is also increasingly relevant to collect longitudinal information from survey data to study income dynamics and whether poverty is persistent or transitory (Madeira 2015, Krueger et al. 2010). Although being classified as cross-sectional datasets, employment surveys include a rotating sample design and sample the same housing units for a fixed number of quarters to save operating costs (International Labour Office 1990). Rotating samples differ from panel or longitudinal data in the sense that panel surveys attempt to include all members of the initial sample, while rotating designs only follow a fraction (such as one third) of the initial sample (Madeira 2015). As discussed in the review of Krueger et al. (2010), longitudinal household surveys exist for the United States (such as the PSID, 1968-, and the SIPP, 1984-), Australia (HILDA, 2001-), Canada (SLID, 1993-), Germany (SOEP, 1984-), the UK (BHPS, 1991-), Russia, UK, and for 14 member countries of the European Union (ECHP, 1994-2001).

4 Business and Economic Outlook surveys

Economic Tendency Surveys (ETS) or Business Surveys are well-established tools for the assessment and analysis of economic development and fluctuations in the business cycle (Chanut et al. 2019). They have proven successful in many countries and under different economic and social conditions. ETS ask company managers/consumers about the current situation of their business/household, their opinions on the whole economy and their plans and expectations for the near future, being extremely important as leading indicators (OECD 2000). ETS provide valuable insight and information both for countries with well-established and advanced statistical system and also for countries with a weaker statistical system. Tendency surveys were recognized as useful tools in providing an early warning of changes in economic activity either as stand-alone indicators or as components of coherent indicator sets and composite indicators (United Nations 2015). Finally, Business Surveys are also a fundamental tool to study R&D investment and entrepreneurs' perceptions of policy making (OECD 2000).

Another important characteristic of ETS is that they allow for the collection of information on variables with insufficient quantitative data, such as constraints on production and inventories (United Nations 2015). Generally, all those who are involved in business cycle analysis are potential customers of ETS data, including politicians, ministries, central banks, commercial banks, financial market analysts, and professional associations (OECD 2000). ETS have some unique characteristics. The most important features of ETS are their high frequency, timeliness and continuous harmonization (European Commission 2016). The simple and intuitive questionnaires make it easy for the respondent to complete it quickly. Because of this simplicity of the questionnaire, the processing time of the data is also very short: usually results of ETS are available soon after the survey (United Nations 2015). Surveys are therefore a key complement to official statistics, which are often available only after a long lag. The survey data generated within the framework of the Joint Harmonized EU Programme of Business and Consumer Surveys are particularly useful for monitoring economic developments at Member State, EU and euro-area level (European Commission 2016).

5 Loan officers' surveys

A key issue in macroeconomics is to understand the transmission mechanisms of monetary policy into the real economy, such as the credit channel, composed by the interaction between the balance sheet channel and its bank lending component (Ciccarelli et al. 2015). This framework still has several unanswered questions, mainly because of the difficulties encompassed in disentangling demand and supply shocks on credit growth rates. The Senior Loans Officers' Surveys (SLOS) on lending standards and demand perceptions were designed to identify the credit dynamics and its determinants (Jara, Martinez and Oda 2017). These surveys collect information on both supply and demand shocks, including macroeconomic shocks and changes in regulation, across a variety of loan markets, including commercial debt, corporate loans, consumer debt and mortgages. After the global financial crisis, this information has been used to conduct various studies that show the relevance of these instruments in explaining the dynamics of credit, especially during turbulent economic times. It is now a crucial instrument to assess banks' risk taking and capital adequacy (Ciccarelli et al. 2015).

In a bank dominated economy, credit is an essential lubricant to the engine of economic growth and its prognosis may be a useful input in policy formulation (Ciccarelli et al. 2015). Information on credit is often supplemented with the bankers' perceptions about its demand and financing conditions in loans such as retail, infrastructure, commercial, mortgage or corporate, which are collected through dedicated Bank Lending Surveys (BLS), also known as senior loan officers' or credit condition surveys (Gangadaran and Majumdar 2020). The Senior Loan Officers Survey (SLOS) account for changes in the supply of loans and factors affecting the willingness to lend, as well as variations in the demand for credit and its motivations.

Bank lending surveys are conducted regularly by central banks in major developed economies (the USA, the UK, Germany, Italy, Japan, Canada, New Zealand and the euro area countries) and some other developing and emerging market economies such as Chile, Jamaica, Nigeria and Thailand, which generally release their aggregate results in public domain (Jara, Martinez and Oda 2017). The European Investment Bank (EIB) manages the half-yearly BLS to monitor banking sector trends and challenges in the Central, Eastern and South-Eastern Europe (CESEE) region (Gangadaran and Majumdar 2020). Among central banks, senior loan officers' surveys are widely

used to comprehend the role of banks in the credit channel and their influence in the transmission of monetary policy, beyond the interest rate effects on credit demand. After the global financial crisis, this information has been used to conduct various studies that show the relevance of these instruments in explaining the dynamics of credit, especially during turbulent economic times. Credit standards and demand perceptions are statistically and economically relevant to determine credit growth (Jara, Martinez and Oda 2017), especially during contractionary credit conditions (Ciccarelli et al. 2015).

Changes in lending standards contained in SLOS are key to understanding credit dynamics and its effects on the real economy. Disaggregation of lending standards helps to build indexes of credit supply and demand and explain the dynamics of real activity (Bassett et al. 2014, Breeden and Canals-Cerdá 2018). Additionally, Bassett et al. (2014) construct an index of credit supply based on the survey's information on household and corporate loans, with implications for both financial and monetary policy. Along these lines, Ciccarelli et al. (2015) emphasize the capacity of SLOS in disentangling demand and supply factors behind credit growth rates relies precisely on the measurement of banks' expectations. Lending standards contained in SLOS help to identify the bank lending channel and, consequently, to understand the overall role of the credit channel in the transmission of monetary policy. In fact, changes in lending standards have been linked to changes in credit growth rates and interest rates, with a loosening in lending standards being associated with excessive credit growth rates and higher delinquency rates (Bassett et al. 2014, Breeden and Canals-Cerdá 2018). These issues have increased in importance since the Great Financial Crisis which affected the USA, Germany and most of the developed world (Ciccarelli et al. 2015).

At the policy level, central banks use the insights embedded in SLOS, such as banks' willingness to lend and their perceptions about credit demand. Since banks can influence credit cycles through their forward-looking decisions on loan-loss provisioning, their behavior generates a feedback effect on lending standards, lending activity and output (Bassett et al. 2014, Ciccarelli et al. 2015).

6 Household Finance and Family Expenditures' surveys

Household finance surveys, such as the Household Finance Consumption Survey in Europe or the Survey of Consumer Finance in the US, are increasingly used to study families' decisions on

savings, investments and borrowing (Le Blanc et al. 2015, Bover et al. 2016). These surveys collect information about assets and liabilities, income, and indicators of consumption and credit constraints (Eurosystem Household Finance and Consumption Network 2009). Reliable data on households' wealth (Le Blanc et al. 2015), income and consumption can provide important input into central banks' policies, ranging from monetary policy to financial stability and payment systems (Eurosystem Household Finance and Consumption Network 2009). Such surveys also provide reliable information on housing ownership, mortgages and households' investment behavior, such as mortgage renegotiation, with most comparable data at the international level coming from household surveys (Badarinza, Campbell and Ramadorai 2016). Furthermore, these surveys can complement on other household risks with huge economic consequences such as the risk of HIV and other negative health events (Delavande 2014).

These surveys have already been implemented across the Euro-area (Bover et al. 2016), the USA (Cerletti and Pijoan-Mas 2017), most OECD countries (Badarinza, Campbell and Ramadorai 2016), plus developing economies such as China (Cull et al. 2019), India (Banerjee et al. 2015) Eastern Europe (Beck and Brown 2015), Chile (Madeira 2018, 2019), South Africa (Karlan and Zinman 2008), and Thailand (Samphantharak and Townsend 2018). Economic and financial relationships are particularly complex in Southeast Asia, where contracts are unwritten and payment is often made through gifts and networks of friends and kin (Samphantharak and Townsend 2018). These surveys can also be used to study the consumption of durable goods, which typically requires more financing (Cerletti and Pijoan-Mas 2017), and the presence of consumption insurance in the population (Cerletti 2013, Cerletti and Pijoan-Mas 2017).

Survey information on finances is important, especially because many households and small enterprises rely on a diversity of funding sources, including bank and non-bank lenders (Cull et al. 2019, Madeira 2019). This motive for collecting better household information is even more important in emerging markets and developing economies, such as China, India or Thailand. The fact that households and small firms have a substantial degree of private knowledge about their economic and financial conditions leads to information asymmetries between borrowers and lenders (Beck and Brown 2015), which are best captured with a survey framework that collects information about a diversity of loans (Madeira 2018). Household finance surveys can also be used to inform how borrowers deal with purchase decisions (Souleles 2004) and financial risk frictions (Madeira

2018). For this reason, in the last 20 years different survey methodologies and interview methods have attempted to improve survey measurement of economic and financial variables (Le Blanc et al. 2015, Delavande 2014).

These surveys can also be used for microeconomic studies of household debt (Eurosystem Household Finance and Consumption Network 2009, Le Blanc et al. 2015), applying stress tests to the economy (Eurosystem Household Finance and Consumption Network 2009, Madeira 2018), the analysis of sorting between households and lenders (Madeira 2018), and the implementation of new regulations such as interest rate ceilings (Madeira 2019). Surveys of small firms and households can also inform about the financial problems faced by families and entrepreneurs, especially in developing countries (Beck and Brown 2015, Cull et al. 2019).

Finally, several household finance and family expenditures' surveys provide crucial information on the households' purchase baskets, which is relevant to update the Consumer Price Inflation indexes and also study how income or health shocks translate into consumption (Attanasio and Weber 2010).

7 Conclusions

This chapter has taken a look across the financial research and policy use of surveys, with a special focus on macroeconomic expectations such as inflation, business outlook and industrial activity, senior loans' officers reports, plus household finance and family expenditures.

Heterogeneity of assets across individuals is important to measure, because national accounts often represent the wealthiest individuals and companies, with small businesses and households counting little for the aggregate GDP (Stiglitz, Sen and Fitoussi 2009). This is why it is relevant to keep implementing surveys that focus on the wide range of economic behavior across firms (Coibion et al. 2020), financial analysts (Kose et al. 2019, Glas and Hartmann 2016, Siklos 2013), individuals (Delavande 2014) and households (Deaton 2019). Across most of the world, survey data is still the most complete and reliable source of information for policy-makers across such issues as poverty, consumption, taxation (Madeira 2018, Samphantharak and Townsend 2018, Deaton 2019), stress tests and debt repayment behavior (Eurosystem Household Finance and Consumption Network 2009, Madeira 2018), and even central bank credibility (Kose et al. 2019).

It is relevant to observe that researchers working in the developing world often confront challenges to collecting high-quality data and available data is often missing in some key aspects (Delavande 2014). Lenders in many countries are often informal and do not report to the official statistics system (Cull et al. 2019, Madeira 2018). Therefore improving survey measurement (Lupu and Michelitch 2018) and the variety of information collected (Samphantharak, Schuh and Townsend 2018) is crucial towards understanding better the behavior of agents, having a complete picture of the economy (Stiglitz, Sen and Fitoussi 2009, Madeira 2018), and to adequately assess the impact of policies (Eurosystem Household Finance and Consumption Network 2009, Bover et al. 2016), especially when such policies have heterogeneous effects on different households (Madeira 2021). A lot of research effort remains to do if we want to understand liquidity flows and the use of means of payment such as currency, checking accounts, prepaid cards, credit cards, and other payment instruments such as FinTech (Samphantharak, Schuh and Townsend 2018), which are increasingly being used in China, Southeast Asia, India and most of the developing world (Demirguc-Kunt et al. 2018).

Therefore, future efforts to improve the sampling, quality and usefulness of survey variables deserve more attention (Stiglitz, Sen and Fitoussi 2009, Delavande 2014, Samphantharak, Schuh and Townsend 2018), especially from multinational institutions and policy makers (UNU-WIDER 2013, Demirguc-Kunt et al. 2018), including new topics such as the expansion of FinTech (Demirguc-Kunt et al. 2018).

Finally, due to their measurement of both the formal and the informal economy, these datasets have also shown to be crucial to evaluate policy exercises and their heterogeneous effects on households and firms (Stiglitz, Sen and Fitoussi 2009, Deaton 2019, D’Acunto et al. 2020), such as the impact of the recent Covid pandemic (Madeira 2021). Recent work shows how surveys can be used to assess the efficiency of unconventional fiscal and monetary policies such as forward guidance, spending plans and tax cuts, as well as their impact on a heterogeneous population (D’Acunto et al. 2020). Developments for finance should be particularly useful for central banks, regulators and multinational institutions working in emerging markets (Demirguc-Kunt et al. 2018).

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