



COLOMBIA

SELECTED ISSUES PAPER

June 2015

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COLOMBIA

SELECTED ISSUES

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Approved By
**Western Hemisphere
Department**

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OVERVIEW¹

1. Colombia has enjoyed several years of macro-financial stability and strong growth, which supported improvements in the labor market and social conditions. Economic growth in Colombia has been among the highest in Latin America during the last several years, underpinned by macroeconomic stability and a strong policy framework, including an inflation-targeting regime, a flexible exchange rate, and fiscal policy guided by a structural balance rule. Prudent financial supervision and regulation have supported financial deepening and macro-financial stability. Colombia's broad-based growth has underpinned important gains in social indicators, including a decline in poverty, inequality, and unemployment.

2. Against the backdrop of a dimmer external outlook, Colombia's key medium-term challenge will be to preserve macroeconomic stability while sustaining strong and inclusive growth. Colombia faces significantly weaker terms of trade and potentially less favorable external financial conditions. In addition, growth prospects in trading partners, including other emerging market countries have weakened. As in other countries, Colombia faces the challenge of achieving "high quality growth" that reduces social gaps such as income inequality. Structural reforms and continued improvements in the macroeconomic and financial frameworks will be important for supporting medium growth, offsetting the headwinds from external conditions.

3. This Selected Issues Paper addresses key areas that would contribute to maintaining macroeconomic stability and inclusive growth:

- Labor market and structural reforms to achieve inclusive growth.
- Reducing infrastructure gaps through an ambitious investment program.
- Recent progress and remaining challenges in financial inclusion and the financial regulatory and supervisory framework, and improvements in the quality of capital.

4. Strong economic growth in Colombia has significantly reduced poverty, but has had limited impact so far on reducing inequality. As in other countries, the performance of the labor market affects not only efficiency (growth) but also income distribution, including through informality and skill formation (Chapter 1: Colombia's Experience with Inclusive Growth). Strong growth and social programs have helped reduce poverty. Going forward, efforts to further strengthen education, pension and tax systems stand to yield important social gains, as recognized by the national development plan.

5. Labor market distortions have declined in recent years, but challenges remain. The reduction in labor market distortions—estimated through a reduced-form real business cycle decomposition—has had a quantitatively important association with GDP, investment, and

¹ Prepared by Valerie Cerra and Daniel Rodriguez (both WHD).

employment growth (Chapter 2: The Role of Labor Market Frictions in the Recent Economic Performance of Colombia). In addition, the sensitivity of the unemployment rate to GDP growth in Colombia has declined (Chapter 3: Unemployment-Growth Trends in Colombia and Selected Emerging Markets). The Okun's coefficients seem to be related to the level of informality, size of the agricultural sector, and education attainment. These trends in aggregate employment developments can, however, mask large differences across social groups. Chapter 4 (Youth Entrepreneurship Initiatives in Colombia) reviews ongoing public and private sector efforts to tackle high youth unemployment, which is considerably higher than overall unemployment, as in other many other countries, with an emphasis on youth entrepreneurship.

6. The elimination of infrastructure gaps will play a key role in sustaining strong and broad-based growth, and supporting further economic diversification. Relatively weak road infrastructure represents an important obstacle not only for overall GDP growth, including through export diversification, but also for achieving a more evenly-distributed economic performance across regions in Colombia. Chapter 5 (Infrastructure Investment in Colombia) reviews recent progress in setting the proper conditions to foster private sector participation in infrastructure investment, so as to ensure efficient allocation of risks and macrofinancial stability.

7. Financial inclusion is an important element of inclusive growth, and also contributes to financial stability. Chapter 6 (Informal Finance and Financial Inclusion Policies in Colombia) discusses the success that Colombia has achieved in financial inclusion. Informal finance, typically associated with not having access to traditional financial products, remains widely used. Factors such as age, work status, income, education and financial knowledge are key determinants of the observed use of this type of financing. A richer set of information on financial inclusion and informal finance, including through expanding existing household surveys, would allow a deeper assessment of existing programs and remaining challenges.

8. The authorities continue to further improve the regulatory and supervisory framework of the financial system. The 2012 FSAP found Colombia's financial system to be sound and resilient to a variety of shocks, but it also identified key areas that warrant further strengthening, especially in connection with the importance of complex financial conglomerates and cross-border connections. Chapter 7 (Colombia 2012 FSAP Recommendations Status and Implementation Report) takes stock of measures being made to address FSAP recommendations and finds overall good progress.

9. Colombia continues to strengthen bank capital in order to further enhance the loss absorbing capacity of the financial sector. The quality of capital has been strengthened considerably in recent years, including after an enhanced capital measure was introduced in 2012. The needs for high-quality loss-absorbing capital buffers has increased in recent years as Colombian banks, either as part of banking groups or as part of financial and mixed conglomerates, have expanded operations into Central America and parts of Latin America. Chapter 8 (Colombian Banks' Capital) discusses bank capital adequacy from a cross-country perspective and in connection with the characteristics of Colombia's banking system, and also documents ongoing efforts to fully introduce Basel III capital definitions to enhance the quantity and quality of capital.

COLOMBIA'S EXPERIENCE WITH INCLUSIVE GROWTH¹

Colombia has achieved remarkable gains in poverty reduction in the last decade. However, reductions in income inequality have been more limited. This chapter summarizes the existing literature that studies Colombia's experience, pointing toward education, labor, pension and fiscal issues as key explanatory factors behind these outcomes.

A. Introduction

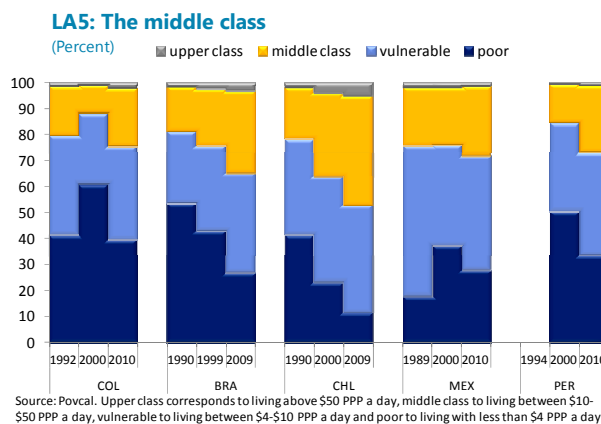
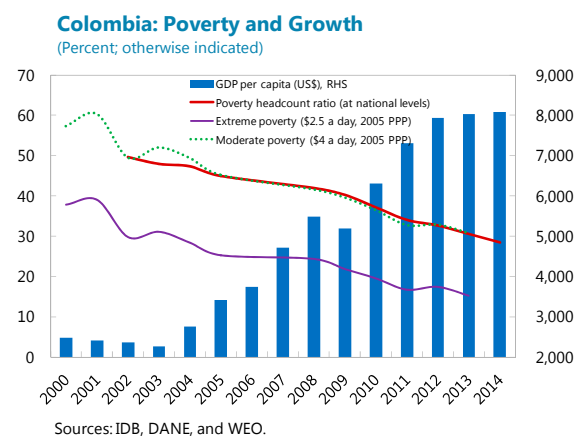
1. **Achieving strong and inclusive growth represents a global challenge.** The medium-term global growth outlook is generally favorable but also uneven, with emerging markets facing gloomier growth prospects this year relative to last, even as advanced economies are projected to pick up. As many emerging markets still face relatively high levels of poverty and inequality, a key priority remains to achieve “high quality” inclusive growth. For financially-integrated commodity exporters, such as Colombia, well-designed structural reforms could help offset the headwinds to growth arising from a subdued outlook for commodity prices and less favorable global financial conditions.
2. **Recent research shows that reducing inequality and strengthening growth could be mutually reinforcing objectives.** According to Ostry, Berg, and Tsangarides (2014), lower inequality leads to higher and more durable growth (see also Berg, and Ostry, 2011). Similarly, Dabla-Norris and others (2015) find that increasing the income of the bottom 20 percent of the population can enhance growth, whereas more concentration among the top 20 percent would reduce growth. These results suggest that Colombia may benefit from higher and more even growth by implementing policies to reduce inequality.
3. **During the last decade, economic growth in Colombia has been “pro-poor” but to a lesser extent, inclusive.** Growth can be considered as “pro-poor” if it is conducive to a reduction in poverty (Ravalion and Chen, 2003) and can be defined as inclusive if it reduces income inequality (Rauniar and Kanbur, 2010). In Colombia, poverty has declined markedly since the late 1990s (from 50 percent in 2002 to 28½ percent in 2014 using the national definition), underpinned by both skillful macroeconomic policies and well-targeted social programs. Nonetheless, the benefits of stronger growth have not resulted in equally strong reductions in income inequality (the Gini coefficient declined only from 57.2 percent in 2002 to 53.8 percent in 2014), and inequality in Colombia remains among the highest in the world.

¹ Prepared by Zulima Leal and Daniel Rodríguez-Delgado (both WHD). We would like to thank Valerie Cerra, María Angelica Arbelaez, Luis Fernando Mejía, Gabriel Armando Piraquive, Nancy Daza, and Cesar López Villada for useful comments.

4. This paper reviews Colombia’s success in poverty reduction during the last decade, and examines the main drivers of inequality. The paper builds upon previous studies on Colombia but also draws from cross-country experiences that have documented key determinants of both poverty and inequality. The paper first focuses on the relation between poverty and growth, including the role of social programs. Second, in line with the most important determinants of income inequality according to the literature, the paper examines issues related to the labor market, education, pensions, and fiscal policy.

B. Pro-Poor Growth

5. The deep economic crisis of the late 1990’s led to a large increase in poverty and a strong reduction of the middle class.² In 1999, Colombia suffered the worst economic crisis in recent years driven by a sharp reversal of capital inflows around the time of the Asian and Russian crises. Real GDP fell by 4.2 percent, the unemployment rate reached 20 percent, and poverty skyrocketed to 60 percent of the population (defined as people living under US\$4 a day, PPP). Further, the middle class (US\$10 to US\$50 a day, PPP) shrank to 11 percent, from 20 percent in early 1990s.³ As a result, the crisis reshuffled the structure of the society, displacing the majority of the population into either poverty or into a state from which there was a 10 percent probability to fall into poverty (also referred as vulnerable state). After the crisis, the middle class took off, but persists as one of the lowest in the region (Angulo, Gaviria and Morales, 2013).



² Ferreira, and others (2013) estimate the upper and lower band of the middle class based on survey data considerations for the region. Although low, the lower band of \$US10 a day represents the 68th percentile of the income distribution for the region in 2009.

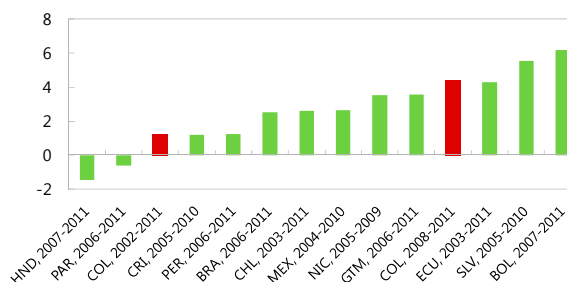
³ See Castellani, Parent and Zentero (2014), Daza, and Cortés (2013), Angulo, Gaviria and Morales (2013) and Castellani and Parent (2011) for alternative definitions of middle class.

6. Growth has been “pro-poor” since the crisis, helping to lift many people out of poverty.

In response to the crisis, the government implemented a comprehensive reform package, in coordination with the Fund, which helped restore macroeconomic stability.⁴ The combination of the reform package, successful efforts to improve the security situation, and favorable terms of trade underpinned growth in the last decade and helped reduce poverty rates and restore the middle class in Colombia. GDP per capita improved dramatically starting in 2003. The income of the bottom 40 percent of the population has been growing faster than average income, with major gains occurring toward the end of the 2000s. Consequently, poverty rates (national definition) declined rapidly, from about 50 percent in 2002 to 28.5 percent in 2014. Further, under a uniform cross-country definition (US\$4 per day, PPP), Colombia’s poverty rate was almost halved from 2001 to 2013, to about 31 percent, which represents a slightly stronger poverty reduction than the regional average.

Progressive Growth 1/

(Difference between growth rates of the poor and average income, using poverty line at US\$2.5 PPP)



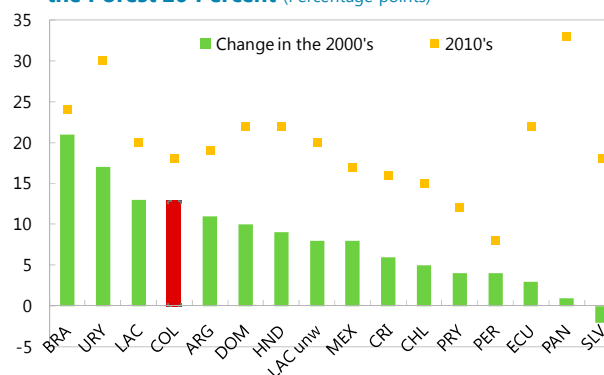
Source: Sedlac.

1/ Ravallion and Chen Decomposition.

7. Social transfers have been a key factor contributing to poverty reduction.

The share of transfers in household income of the poorest doubled during 2000–10 and reached 20 percent, which is a level that exceeds the regional average (Azevedo, et al., 2013). Cord, Genoni and Rodríguez-Catalán (2015) estimate that between 2002–13, transfers accounted for 39.7 percent of the reduction in extreme poverty (US\$2.5 per day, PPP) and 16.8 percent of the reduction in moderate poverty (US\$4 per day, PPP) in the country (see Appendix for an overview of key social programs).

LA: Share of Transfers in Total Household Income of the Poorest 20 Percent (Percentage points)



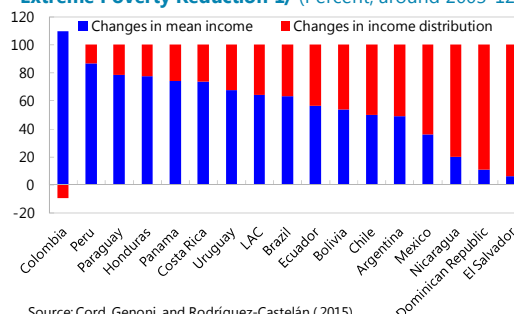
Source: Azevedo, and others (2013).

8. Recent research also confirms the central role that economic growth has had in reducing poverty. Cord, Genoni and Rodríguez-Catalán (2015) decomposed reductions in poverty across Latin America during 2003–12 into the contributions from income growth and changes in the income distribution. The methodology is as follows. Poverty is measured as US\$4 income per day (PPP). The contribution from income growth refers to changes in poverty due to changes in the

⁴ For instance, see IMF (2005) for more details on the crisis and the set of policies that were adopted at the time.

mean of the income distribution while keeping constant all other aspects of the distribution of income as in the base year (2003). In turn, the contribution from income redistribution refers to changes in poverty due to changes in the distribution of income keeping the mean of the base year constant. For the regional average, Lustig, Lopez-Calva, and Ortiz-Juarez (2013) find that about 57 percent of the progress in poverty alleviation relates to mean income growth, and 43 percent stems from redistribution. In contrast, mean income growth drove all of the reduction in poverty in Colombia. In fact, it more than compensated for the negative contribution of redistribution. The result implies that income growth was strong for all income groups in Colombia in recent years, which helped lift many people out of poverty, but also boosted to a greater extent the income of the richest people.

LA: Contribution of Growth and Redistribution in Extreme Poverty Reduction 1/ (Percent, around 2003-12)

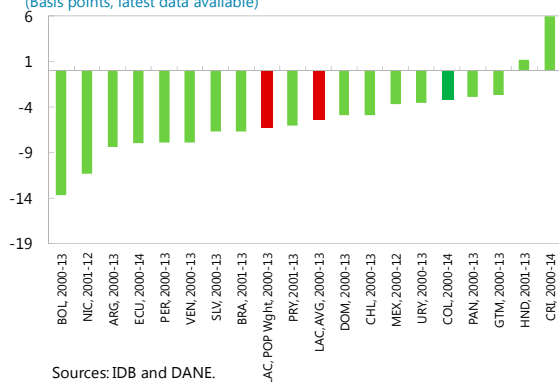


Source: Cord, Genoni, and Rodríguez-Castelán (2015)
1/ Datt-Ravallion decomposition. Data excludes Guatemala as the country shows an increase in poverty.

C. Limited Inclusiveness of Economic Growth

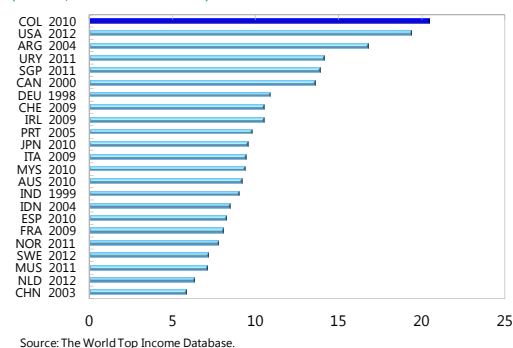
9. The reduction of income inequality in Colombia has been modest. In Colombia, the Gini coefficient declined by about 3.4 percentage points from 2002 to 2012, and has remained broadly unchanged since then. This achievement is lower than the 5.8 percentage points reduction obtained on average within Latin America. The current level of the Gini coefficient is the 7th highest in the world, comparable to Haiti, South Africa and Honduras. Further, the concentration of income among the top 1 percent is the highest in the dataset compiled by Piketty and others. In 2010, the richest top 1 percent in Colombia held around 20 percent of the total national income.⁵

LA: Change in Gini (Basis points, latest data available)



Sources: IDB and DANE.

Top 1 Percent Income Share (Percent, latest data available)

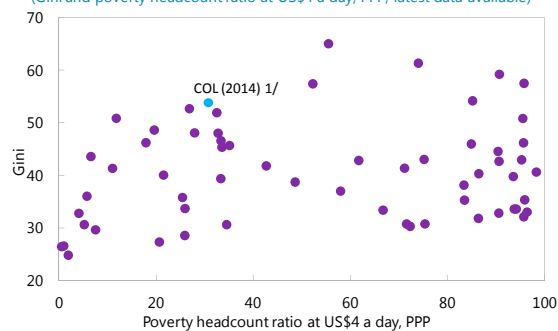


Source: The World Top Income Database.

⁵ Alvaredo and others (2014).

Colombia: One of the Most Unequal Countries

(Gini and poverty headcount ratio at US\$4 a day, PPP, latest data available)



Sources: Povcal; IDB; and DANE.

1/ Poverty data corresponds to 2013.

D. Some key Drivers of the Recent Decline in Income Inequality

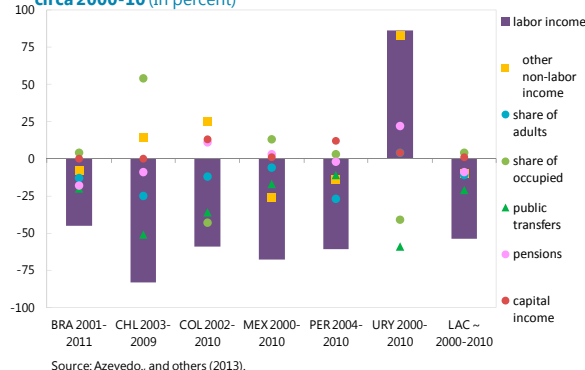
10. Globally, key determinants of income inequality include skill-biased technological change, international trade, educational gaps, and labor market policies and institutions.

Kierzenkowski and Koske (2013) present a detailed review of the factors considered in the literature as drivers of labor income inequality. They found that an increase in the relative demand for skilled workers caused by technological innovations drove the increase in inequality observed in the early 1980s. They also noted that international trade contributed to inequality in the 1990s and 2000s, by increasing the wage skill gap of some labor segments, including among countries at similar stages of development. They also find that inequality arises from uneven returns to education among different levels of income. Recently, economic research has also shown that labor unionization and minimum wages reduce income inequality by raising incomes of the poor (Jaumotte and Osorio Buitron, 2015).

11. There are several factors that drove the reduction of inequality in Latin America.

The main drivers of the decline in inequality in the region include factors related to the labor market (increases in minimum wages; increases in earnings per hour across lower income population; reduction in skill premiums and increases in skills of the labor force), government transfers, and demographic changes (decline in dependency ratio and higher shares of adults with labor earnings) (Gasparini and Lustig, 2011; Lopez-Calva and Lustig, 2010).

Factors Contributing to Reduce Income Inequality in Latin America circa 2000-10 (in percent)



Source: Azevedo, and others (2013).

12. A few factors stand out in Colombia's experience in reducing inequality. Azevedo, and others (2013) shed light on the main determinants of the inequality reduction in Colombia, albeit only for the period 2002–10, during which inequality declined by about 1.2 percentage points. In particular, they found that there were three main factors: rising labor income among the poor, an

increase in the share of employed adults, and public transfers. In contrast, they find that pensions and capital income have been a drag on improving the income distribution.

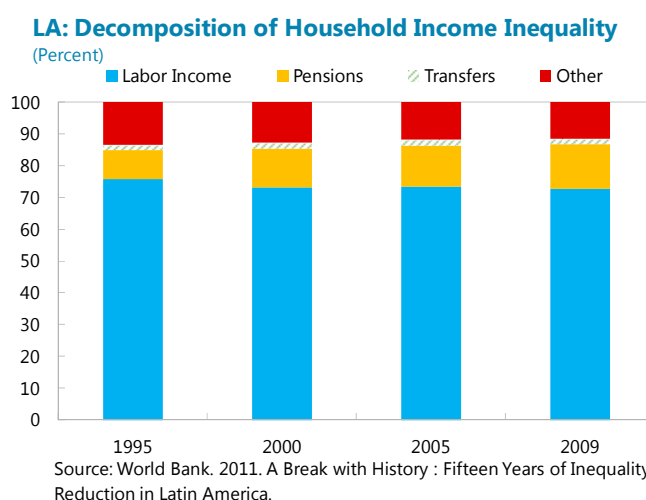
E. What Could be Behind the Still High Income Inequality?

13. In Colombia, issues related to labor market, education, pensions and fiscal policy are key determinants of the still high level of inequality. This section will elaborate on each of these issues. In short: (a) in Colombia there is a relatively large share of informal and/or unskilled employment; (b) the quality of education is low by international standards and unevenly distributed across social groups and regions; (c) further, the pension system is regressive and the redistribution power of fiscal policy is low.

Labor Market Issues

14. Labor income inequality is the main source of income inequality.

A World Bank (2011) report on inequality in the region evaluates the contribution of each of the components of household income (labor income, pensions, transfers and other factors) in explaining the persistence of inequality. They find that around 73 percent of inequality in Latin America in 2009 relates to labor income disparities and 14 percent to pensions.

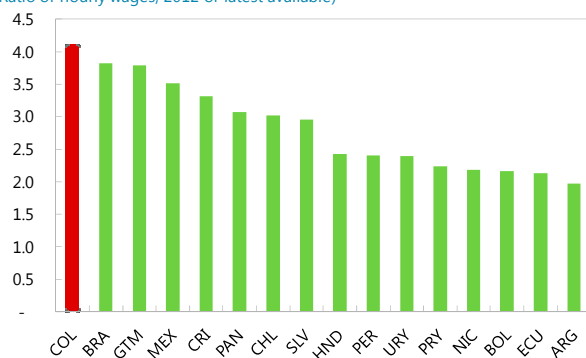


15. In Colombia, the wage gap between skilled and unskilled workers has narrowed, yet remains an important contributor to inequality.⁶ Since 2002, in Colombia as in other countries in the region, real wages for unskilled workers have been growing faster than the rest, underpinned by the commodity boom that increased the demand for low skilled workers (Gasparini and Lustig, 2011). Despite these gains, wages for skilled workers in Colombia are still four times the level for unskilled workers, on average. This wage gap is the largest in the region and reflects in part limited access to pre-primary and tertiary education for poor households (OECD, 2015).

⁶ Skilled workers refer to employees with more than 13 years of formal education (high skills).

LA: Wage Premium between Skilled and Unskilled Workers

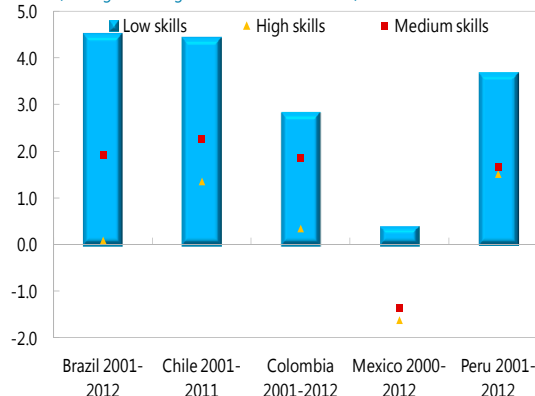
(Ratio of hourly wages, 2012 or latest available)



Sources: SEDLAC and author's calculations.

LA5: Real Wage Growth

(Average annual growth rates in the 2000's)

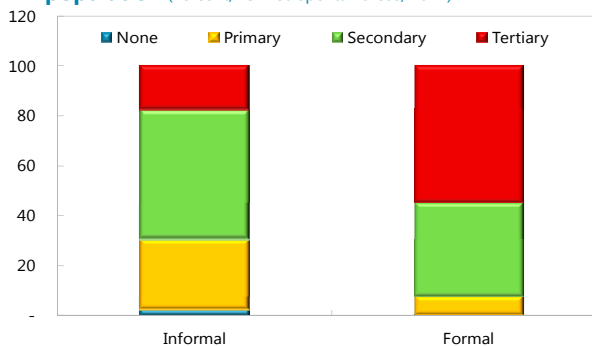


Source: Sedlac

16. Data suggests labor informality could also be a factor behind wage income inequality.

In Colombia, informality stands at 52 percent of the employed population in Colombia, around the mid-range of informality rates in the region.⁷ Informality is mostly concentrated at the lowest level of income, with the bottom 40 percent income segment of the population working mainly in the informal sector. The wage gap between the formal and informal sectors is between 38 percent and 62 percent, depending on the definition of informality that is used (Daza, and Gamboa, 2013). In general, a vast majority of the informal workers (80 percent) has less than tertiary education, earn on average less than the formal sector, and have not benefitted as much from recent job creation. High informality also contributes to inequality because the informal sector has limited access to finance and public benefits (OECD, 2015).

Colombia: Educational attainment of the employed population (Percent, 13 metropolitan areas, 2014)



Sources: Dane; and author's calculations

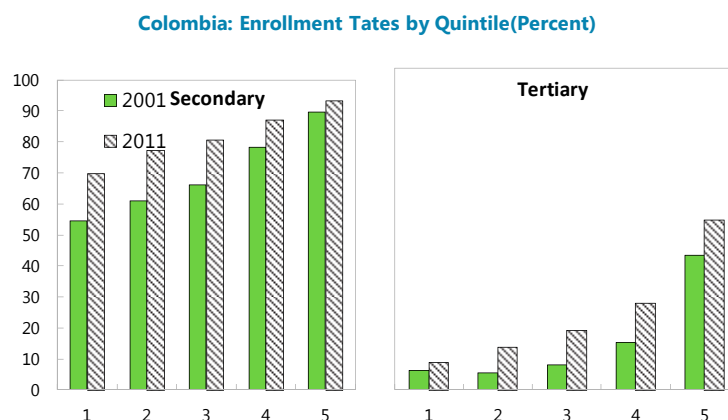
⁷ Informality corresponds to the definition adopted by DANE which includes employees and owners of business with less than 5 workers, unpaid family members and housekeepers. In the literature there are other definitions of informality; some are related to tax compliance or social security contributions. See Hamann and Mejia, (2011); Perry et al. (2007) and Garcia and Adolfo (2008) for recent studies on determinants of informality.

Skills Formation and Education

17. The skill level among the employed population is highly uneven in Colombia. In 2012, only around 16 percent of the employed population in Colombia was skilled, a level slightly lower than the 19 percent average among regional peers (Mexico, Brazil, Chile and Peru).⁸

18. Educational enrollment has increased in recent years, but remains lower than in peer countries. Gains in educational enrollments rates in primary and secondary education are remarkable, with around 17 percent points increase in primary education between 1991–2010 and 11 percent points increase in secondary education from 2005–10. However, the net enrollment rate in primary education is still lower than peer countries—87 percent in 2010 compared to an average of 94 percent for Mexico, Peru and Chile.⁹

19. Education enrollment also remains uneven across income groups. As the accompanying chart below shows, access to secondary education is lower for the poor (70 percent for the first income quintile; 90 percent for the fifth quintile). Reduced levels of enrollment among the poor are even more marked in tertiary education. Despite some recent improvements, enrollment in tertiary education for the bottom 40 percent of the income distribution is very low (less than 9 percent for the lowest quintile and 13 percent for the second lowest quintile) and is only one third of the level of access of the top 20 percent richest. This is in part a reflection of the low quality of primary and secondary education for the poor.



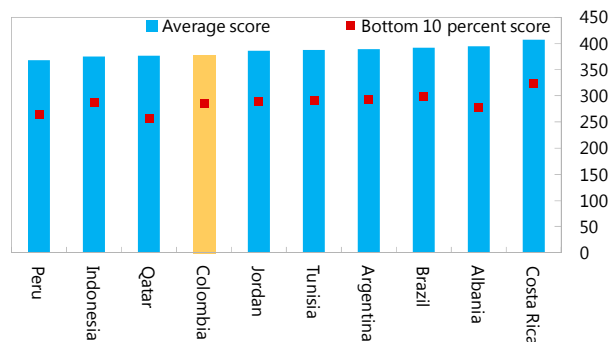
⁸ Data available in the Socio-Economic Database for Latin America.

⁹ Gross enrollment refers to the total enrollment rate regardless of age while net enrollment only considers the population of official school aged that is enrolled.

20. Data on aggregate coverage mask important differences in quality.

Access to quality education remains limited in Colombia. Colombia’s expenditure on education—around 5 percent of GDP in 2013—is roughly similar to several countries in Europe and the United States. However, the quality of education, measured by math Pisa scores, is among the lowest in the world. The data also suggest that the socioeconomic background of the pupils is a significant determinant of tests scores. In particular, the Pisa scores are significantly lower for pupils in the bottom 10 percent of income distribution. The correlation between socioeconomic background and test results point to the possibility that the education system might be hindering social mobility, including by limiting skill formation and access to better paid jobs later-on. The results of other national standardized tests (Saber) also show significant variation across regions, which also reflect uneven quality and coverage of education (DNP, 2015b).

Lowest Math Pisa Scores in the World (2012)



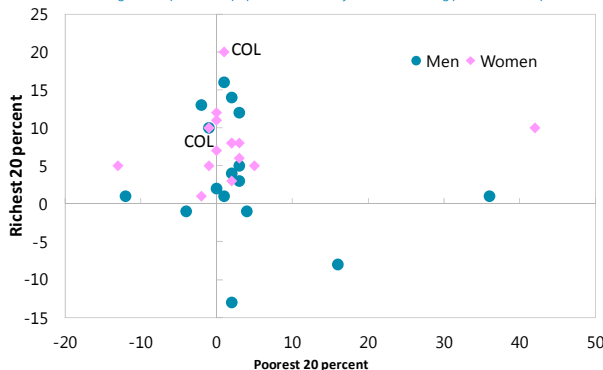
Source: Pisa.

Pensions

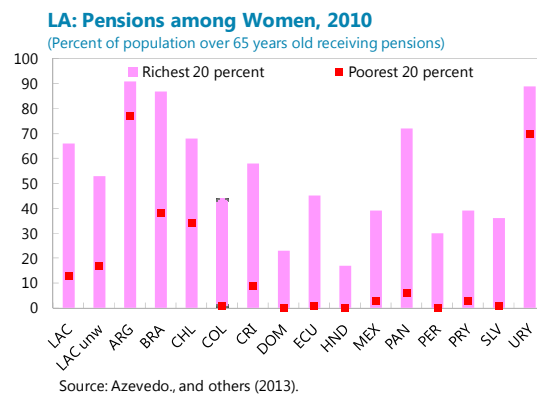
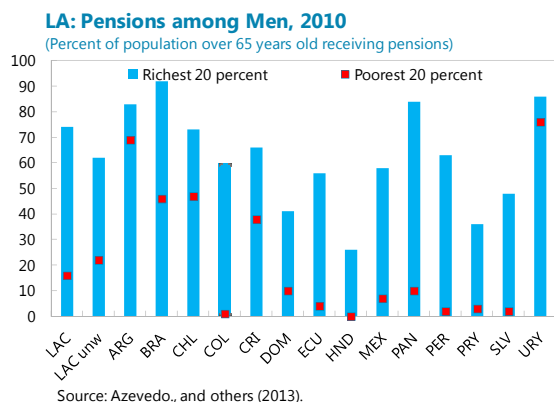
21. Pension coverage is low, and pension benefits are received disproportionately by the better-off.

Only 37 percent of the elderly received a pension in 2013 due in part to the relatively large labor informality. Some data, albeit only for 2010, suggest that most of the richest top 20 percent receive a pension while almost none of the poorest 20 percent receive one. Also, the largest gains in coverage in recent years accrue to wealthiest women (Azevedo and others, 2013—see chart). As pension benefits are not taxed in Colombia, the uneven distribution of pension benefits directly worsens the income distribution.

1A: Change in Pensions in the Last Decade among the Poor and the Rich (Change in the percent of population over 65 years old receiving pensions, basis points.)



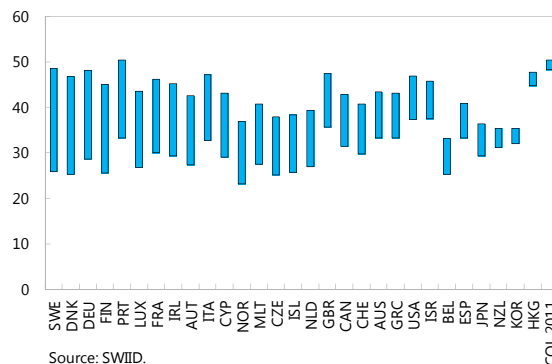
Source: Azevedo, and others (2013).



Fiscal Policy

22. The redistributive power of fiscal policy in Colombia is limited. Fiscal policy is usually a key redistribution tool, including through progressive tax systems and/or social transfers. However, in Colombia, direct taxes, indirect taxes, and monetary transfers have been ineffective in reducing income disparities. The redistributive potential of the tax system is limited by the low direct income taxation and heavy reliance on VAT (Moller, 2012). In sum, as shown in the accompanying chart, fiscal policy only reduces the Gini coefficient by 1 percentage point.¹⁰

Difference between Gini Market and Gini net
(Basis Points, latest data available)



F. Conclusion

23. Since the late 1990s, Colombia has achieved strong economic performance while restoring macroeconomic stability. Colombia’s recent growth performance stands out in the region both in terms of its level and stability (see accompanying Chapter 2). In contrast with the late 1990s crisis, Colombia successfully navigated the 2008–09 global crisis, drawing on the policy buffers that were built in the previous years.

24. Colombia has also achieved remarkable success in reducing poverty levels. The combination of economic growth and social programs has led to halving the poverty levels over the last decade. As a reflection of strong social programs and safety nets, the downward path in poverty levels continued throughout the years of the global financial crisis (2008–10).

¹⁰ Gini net is calculated using household disposable income (after taxes and transfers). For more details see Solt, 2009.

25. As in other countries in the region, Colombia has had more limited success in reducing income inequality. Existing studies suggests that factors related to education, labor markets, pensions, and fiscal policy might be limiting the improvements in income distribution.

26. Recent policy changes and the national development plan (2014–18) include measures in the key areas discussed in this chapter. These include:

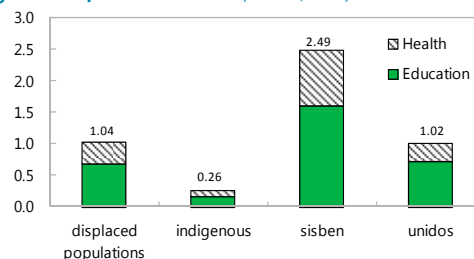
- a. **Education.** The development plan considers education as the “most powerful tool to reduce social gaps (DNP, 2015; page 67)” and aims to introduce policies to strengthen quality and availability of public schools. The plan also calls for extending preferential educational loans for eligible low income students.
- b. **Labor markets.** Ongoing efforts include streamlining the requirements to make formal contributions to pension and health systems, which could reduce labor informality. Plans also include establishing a centralized database for vacancies to help first time job-seekers, mainly unemployed youth.
- c. **Pensions.** Ongoing plans include strengthening the safety net of the poor through an expanded coverage of non-contributory pensions (*Colombia Mayor*).
- d. **Fiscal policy.** The 2012 tax reform aims to improve tax progressivity including through the introduction of an alternative minimum personal income tax. Looking ahead, an expert commission was recently formed to make recommendations for a broad tax reform aimed to further strengthen progressivity.

Appendix. 1. Selected Social Programs in Colombia

1. Several social programs targeted to the most vulnerable populations, including conditional cash transfers programs have been in place since the mid-2000s.¹

- *Mas familias en acción* offers assistance to low income families, providing nutrition and education benefits. Around 2.6 million families (4.8 million individuals) were beneficiaries in 2014, with a total investment of around US\$853 million. Participants in the program are from displaced or indigenous populations, and meet the criteria of vulnerable populations under the System for Identification and Classification of Potential Beneficiaries for Social Programs (Sisben) or are subscribed to *Unidos*, the strategy for the reduction of extreme poverty.

Colombia: Number of People receiving Health and Education Benefits
Program: *Mas familias en acción* (Million, 2014)



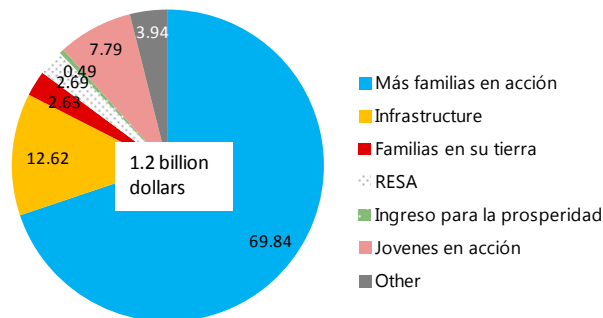
Source: Department for Social Prosperity. Data corresponds to the latest report available, March 2015.

- *Jovenes en acción* offers youth living under poverty and vulnerable conditions an incentive to pursue a technical, technological, or bachelor's degree. In 2014, the program covered 152,370 students, at a cost of US\$95 million.
- *Ingreso para la prosperidad* offers an incentive to needy families looking to improve their labor skills. There were around 6,083 beneficiaries of the program in 2014, at a cost of 6 million dollars.
- *Familias en su tierra* is a program targeting displaced people who return to the place where they used to live or relocate to a new municipality. It offers a cash and in-kind transfer conditional upon their permanence residence in the area where they subscribe to the program. The program covered 209,106 families in 2014.
- *Red de Seguridad Alimentaria (RESA)* is a program to improve access and consumption of basic goods for families living under extreme poverty conditions.
- *Infraestructure*. This program aims at building infrastructure in areas affected by poverty conditions or by violent attacks. In specific, the program executes roads, ports, recreation facilities, generation and distribution of energy, improvements in sewerage, water treatment plant, and other facilities that improve the living standards of the population.

¹ Data in this section corresponds to the latest information available as of March 2015 in the Department of Social Prosperity.

2. In total, the combined social programs implemented by the Department of Social Prosperity (DPS) reached about 5 million people, at a cost of US\$1.2 billion. In addition to the DPS, other institutions also contributed to the overall social strategy including the ANSPE (National Agency to Overcome Extreme Poverty), ICBF (Colombian Family Welfare Institute) and the Unit for Attention and Reparation of Victims with programs offering assistance to families living under extreme poverty, children and victims of the conflict, respectively.

Colombia: Investment in Social Programs by the Department of Social Prosperity. (Percent, 2014)



Source: Department of Social Prosperity

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THE ROLE OF LABOR FRICTIONS IN COLOMBIA'S RECENT ECONOMIC PERFORMANCE¹

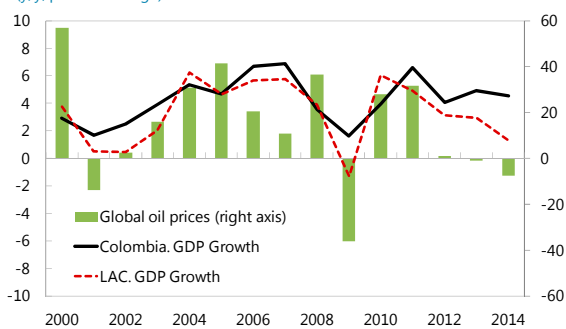
Colombia has sustained strong growth and outpaced its regional peers in recent years and recently implemented an important tax reform to foster labor formality. This paper quantifies the role that improvements in labor market distortions have had in Colombia's recent economic performance; it finds that they have had a significant role in the evolution not only of GDP but also employment and investment.

A. Introduction

1. Colombia's recent economic performance stands out among its peers. Colombia's economic growth has outpaced the region average in most of the years over the last decade; it also been more stable (standard deviation 1.7 for Colombia and 2.3 for the region average), despite being exposed to large swings in oil prices. Further, the 2008–09 crisis affected the region greatly; at the same time, the degree to which countries have closed the gap between their GDP (level) and the one that would have resulted if the pre-crisis (2003–08Q3) growth trend had prevailed, has varied greatly.² Colombia stands out in this dimension as well; its GDP is currently only about 8 percent below the previous trend, which represents the second strongest recovery among the financially integrated countries in the region (LA6)—only marginally weaker than Mexico (7 percent).

Colombia: Strong Economic Performance

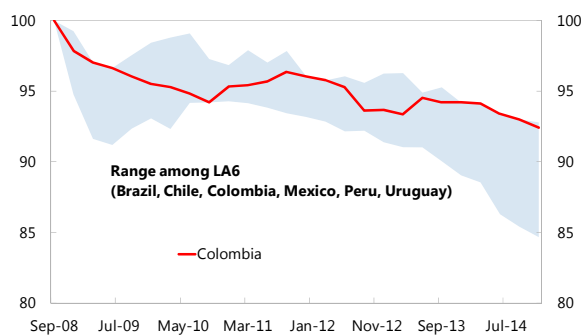
(y/y; percent change)



Source: Fund staff estimates based on WEO.

Colombia has had a Strong Post-Crisis Recovery

(Relative index pre-crisis trend=100; includes Brazil, Chile, Colombia, Mexico, Peru, Uruguay)



Sources: Author's calculations.

¹ Prepared by Daniel Rodríguez-Delgado. Valerie Cerra and seminar participants at the Central Bank of Colombia provided useful comments.

² It is relevant to say at this juncture, that this comparison against the pre-crisis trend is for illustrative purposes only and does not affect the methodology or results of the paper. In particular, it does not intend to argue that absent the crisis, the previous trend would have continued.

2. Employment has been an important growth driver in Colombia during the last decade.

A standard growth accounting decomposition, suggests that employment growth (total hours worked) was the most significant growth contributor during 2000–10, followed by capital accumulation. Total factor productivity, in contrast, remained stagnant during this period. In the most recent years, 2011–14, employment growth’s contribution has lagged behind capital accumulation but still contributed with about 1/3 of total GDP growth.

Colombia: Growth Decomposition (percentage points)

	GDP 1/	Capital 2/	Labor 3/	TFP
2000-08	4.1	1.9	1.8	0.4
2009	1.6	0.2	1.3	0.1
2010	3.9	3.1	3.5	-2.7
2011-14	4.9	2.7	1.7	0.6

Sources: Ministry of Finance, Central Bank and Fund staff estimates and projections

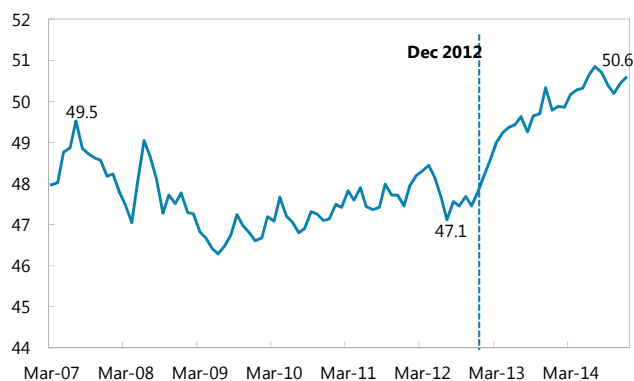
1/ Capital share 0.40. Depreciation 6 percent. Adjusts capital for utilization and labor for hours worked

2/ For projections assumes capacity utilization at historical average

3/ For projections assumes hours worked at historical average

3. Colombia implemented an important tax reform in 2012 aimed to reduce the labor tax-burden. The tax reform’s key component was the replacement of some payroll related taxes earmarked for social benefits with a corporate income tax surcharge. By reducing the tax burden to become formal worker, the reform aimed to reduce the widespread informality. The reform became effective in 2013 and although it is early to make a complete assessment of its impact, labor formality has indeed increased since end-2012.

Employment Formality
(Share of total employment; in percent)



Sources: DANE and Fund staff estimates.

4. In this context, this paper uses the Business Cycle Accounting (BCA) methodology to quantify the role that labor market distortions have had in the observed evolution of GDP and other macroeconomic variables. Intuitively, this methodology asks: by how much one would need to distort a standard growth model so that it is able to replicate the observed data? In this paper we allow for four different types of distortions, each one affecting an equilibrium condition of the

growth model: efficiency (total factor productivity), labor, capital and bond distortions. Distortions are modeled as time-varying shocks and represent the combined effect of structural features such as market imperfections, institutional frameworks, and higher frequency events such as changes in global and local financial conditions, domestic policy decisions, etc (more on this below).

5. This paper builds upon recent applications of the BCA methodology. This paper follows closely Lama (2011), which finds that in episodes of output drop in Latin America during 1990–2006, the labor and efficiency distortions played a dominant role. A similar finding is presented by Cho and Doblas-Madrid (forthcoming) using a larger sample of countries and considering 1980–2006. Further, they find that these two distortions are also key drivers during *recovery* periods. Simonovska and Soderling (2008) present similar results for Chile for the period 1999–2007. In this paper, we apply a similar methodology to the most recent growth experience in Colombia.

6. The main findings are as follows. The model simulations suggest that the contribution of different distortions has been uneven. In particular, changes in labor and efficiency distortions have driven GDP dynamics most closely. In contrast, distortions related to capital accumulation and international borrowing, appear to have played a less important role. Regarding labor distortions, estimation suggests they have eased significantly since late 2008, received an additional boost since end 2012 and have had a quantitatively important role not only in GDP but also in investment and employment.

B. Business Cycle Accounting Methodology

7. As its core, the BCA methodology consists on enriching a standard neoclassical growth model with reduced-form representations of distortions; in this chapter: efficiency, labor, capital and bond/borrowing distortions. The methodology identifies the stochastic process of the distortions most likely to have generated the data. This section follows Lama (2011) who extends Chari et al. (2007)'s methodology to identify frictions that are relevant for explaining economic fluctuations. This is a two-step procedure: (1) estimate the distortions or deviations between the standard neoclassical growth model and the data; (2) evaluate the quantitative relevance of each individual distortion to account for the observed evolution of GDP and other macroeconomic variables.

8. The BCA methodology shares some elements with standard growth decomposition analysis but also has important differences. Similar to traditional growth accounting, the BCA aims to determine the main drivers of the observed dynamics for output, investment, consumption, etc. In contrast with the traditional growth accounting, however, it focuses on identifying which class of distortions induced economic agents to *choose* the dynamics observed in the data. These distortions are modeled as time-varying shocks. While both the growth accounting and the BCA techniques aim to decompose observed dynamics into its subcomponents, there are important differences in how they disentangle the role of “fundamentals”. In short, the BCA aims to incorporate the role of economic agents' decisions, while the growth accounting technique offers a more algebraic decomposition that abstracts from the fact that agents would have chosen different consumption, investment and labor decisions if the fundamentals were different. For example, in

computing the role of efficiency (TFP), the BCA methodology incorporates the fact that investment and employment would have been different if efficiency were to be different; while, the standard growth accounting simply shuts-down productivity growth and assumes investment and employment would be unaffected by such change. Finally, it can be argued that the richer set of questions that the BCA aims to answer is at the expense of requiring additional assumptions than basic growth accounting; for instance, in this paper we assume a standard separable utility function, a stand-in consumer and producer.

9. The setup presented in this paper models distortions as reduced form representations of structural factors. As it is common in the literature, it is useful to think of the modeled distortions as taxes; however, taxation could be just one of many factors causing a wedge between the standard neoclassical growth model and data. Below the paper introduces each type of distortion and briefly mentions some candidate structural factors that could endogenously generate such distortion.

10. As in Lama (2011), the prototype model used in this paper includes a standard representative consumer and firm.

- Stand-in consumers. Consumers maximize expected utility (equation 1) which depends on per capita consumption and per capita labor, subject to the budget constraint, and the law of motion for capital. As it is standard in this type of model, adjustment costs are assumed both for capital (K_t) and debt ($-b_t$) accumulation as in equations 5 and 6 below.

$$\max_{c_t, l_t} E_0 \sum_{t=0}^{\infty} N_t \beta^t U(C_t, l_t) \quad (1)$$

$$(1+n)b_{t+1} + C_t + i_t \leq (1-\tau_{lt})w_t l_t + (1-\tau_{kt})r_t k_t + (1+\tau_{bt})(1+r_t^*)b_t + T_t. \quad (2)$$

$$(1+n)K_{t+1} = (1-\delta)K_t + i_t - \phi(i_t/K_t)K_t. \quad (3)$$

$$(1+r_t^*) = (1+r^*) \left(\frac{b_t}{b^*} \right) \quad (4)$$

- Firms have access to constant returns to scale technology with labor augmenting technological progress and choose capital and labor to maximize profits (equation 7) each period. In this specification, $(1+\gamma)$ is the rate of labor augmenting technical progress—assumed to be constant over time. At is the efficiency distortion.

$$\pi = A_t F(K_t, (1+\gamma)^t l_t) - w_t l_t - r_t k_t \quad (5)$$

11. The key equilibrium conditions determining the measured distortions can be summarized by the following equations:

- Capital/investment: distortions to the inter-temporal allocation of consumption and investment are capture by the term $(1-\tau_{kt})$ as in equation [6]. Models in which the availability of financing to capital investors depend on their net worth (e.g. models with default in which a higher net worth would make default less likely) are relevant candidates to generate this type of friction.

$$U_{ct} = \beta E[U_{ct+1} \{(1-\tau_{kt+1})A_{t+1}F_{kt+1} + (1-\delta)\}] \quad (6)$$

- Efficiency (TFP): gap between GDP and the combination of capital and labor. This represents the standard exogenous TFP shock commonly used in the literature. However, it is relevant to consider models that would generate this distortion endogenously. For example, trade frictions could limit firms' exposure to foreign technology and knowledge. Matching/pairing frictions in the labor market could also result in a suboptimal allocation of skills resulting in lower observed TFP. At this moment, it is useful to note that the previous example represents one in which, a labor market-related distortion would manifest itself beyond what in this chapter is labeled as *labor distortion*.

$$A_t = \frac{Y_t}{F_t} \quad (7)$$

- Bond: distortions to the debt accumulation decision. For example, this distortion could reflect risk premium, or the presence of enforcement-related borrowing constraints.

$$U_{ct} = \beta E[U_{ct+1} \{(1 + \tau_{bt+1})(1 + r_{t+1}^*)\}] \quad (8)$$

- Labor: distortions to the intra-temporal allocation of leisure and consumption. In the literature there a few mechanisms which have been shown to generate this type of distortions including those related to taxes (Ohanian, Raffo and Rogerson, 2008) and wage markups created by sticky wages or strong labor unions (Chari, et al., 2007).

$$-\frac{U_{lt}}{U_{ct}} = (1 - \tau_{lt}) A_t F_{lt} \quad (9)$$

Neumeyer and Perri (2005) put forward an alternative mechanism based on working capital requirements. Under this mechanism, the firms total labor costs would also include a financial component so that more restrictive access to credit would represent a worsening of the labor distortions (Lama, 2011). For example, if firms had to borrow at rate R , to cover a fraction p of their wage bill, the equilibrium conditions will include an equation akin to equation 9, where $(1 - \tau_{lt}) = 1/(1 + pR)$. An important remark is in order. As the previous example demonstrates, improvements in labor distortions would not necessarily depend on labor reforms; in fact, this example shows that reforms or policy actions (e.g. monetary policy rate cuts) aimed to improve credit availability among firms could drive what in this paper is measured as labor distortions.

More recent literature, e.g. Cheremukhin and Restrepo-Echavarria (2014), has shown that the degree of efficiency of the matching process between employers and employees can give rise to the labor distortions measured in this paper.

- Shimer (2009) provides an overview of the literature regarding the "labor wedge" which has looked both at a long-term cross-country difference in labor distortions, as well as business cycle fluctuations of labor distortions. This chapter relates more to the latter part of the literature by looking at detrended quarterly data. There it is important magnitude convention regarding the distortions modeled here that is worth emphasizing at this point. In all estimations and simulations presented in this paper, a *higher value of the distortion factor or wedge, $(1 - \tau)$, would represents a situation closer to "first-best"*. Intuitively, and specially for the labor distortion

term, a natural “prior” conjecture would be that the higher the value of the distortion factor, the higher the equilibrium level of GDP and employment.

12. The calibration and estimation of the model are as follows:

- We assume a Cobb-Douglas production function and a utility function of the form:

$$U(c, l) = \log c + \psi \log(1 - l) \quad (10a)$$

$$F(k, l) = Ak^\alpha l^{1-\alpha} \quad (10b)$$

- The capital adjustment cost is defined by

$$\phi\left(\frac{i}{k}\right) = \frac{\alpha}{2} \left(\frac{i}{k} - \delta - \gamma - \eta - \gamma\eta\right)^2 \quad (11)$$

- The stochastic processes is modeled as a VAR (1):

$$Z_t = \left[\log\left(\frac{A_t}{A}\right), \log\left(\frac{1-\tau_{lt}}{1-\tau_{lt}^e}\right), \log\left(\frac{1-\tau_{kt}}{1-\tau_{kt}^e}\right), \log\left(\frac{1+\tau_{bt}}{1+\tau_{bt}^e}\right) \right] \quad (12)$$

$$Z_t = AZ_{t-1} + \varepsilon_t \quad (13)$$

- The shocks are iid and have a standard normal distribution. From this point forward, all variables are expressed in detrended per capita (in fact, per working age population) terms, with the exception of labor/employment.

13. The general identification strategy is to calibrate the parameters of the model related to technology, preferences, and population growth, and estimate the parameters of the stochastic processes with maximum likelihood. The model is log-linearized around its steady state. Some of the parameters are calibrated to match the main features of Colombia’s quarterly data; otherwise we use rely on standard values used in the literature as to improve comparability with other studies. Ψ is calibrated based on the employment to working age population ratio and hours. The discount factor β is calibrated from the Euler equation (8) at steady state. The capital intensity parameter is set at a standard value in the literature (0.40). The rate of technological progress (γ) and population growth are calculated from the data. We use a standard annual depreciation rate of 5 percent and calibrate the capital adjustment cost as in Lama (2011).

C. Results

14. In his section we apply the calibrated and estimated parameters to recover values for the various distortions consistent with the data. We then infer the relative importance of the various distortions to output, employment and investment fluctuations through two counterfactual scenarios.

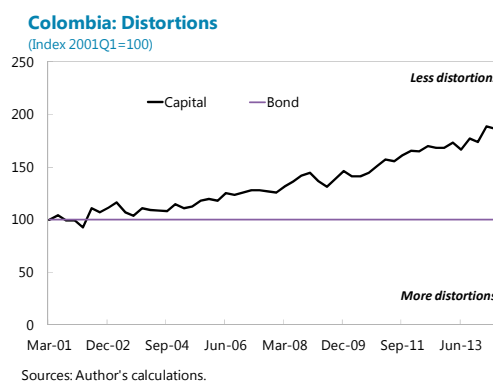
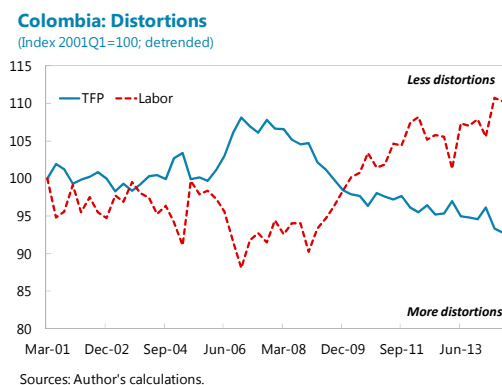
- Introducing each distortion individually.** *The simulations depict the counterfactual level of GDP (investment or employment) in the case that only the specified distortion is as*

estimated, and all others distortions are constant at their steady state level. The goal is to determine which distortion is capable of generating a path for GDP (or investment, or employment) more correlated to the one observed in the data. A model with all distortions at their trend level would generate constant series in which each variable (GDP, investment, labor, and consumption) would be equal to its steady state level.

- b. **Introducing all distortions except labor distortions.** In order to determine the quantitative importance of labor distortions, the paper also computes the amount of GDP (or employment or investment) that would have been lost if labor distortions had remained at their steady state value.

Measured distortions

15. The estimation confirms the relatively weak performance of productivity but also some improvement in labor and capital distortions. In particular, efficiency peaked in late 2006 and has declined about 14 percent since then. In contrast, labor distortions have eased by about 20 percent since late 2008, and by about 5 percent since end-2012. At the same time, distortions to the inter-temporal allocation of consumption and investments have improved steadily since 2001.

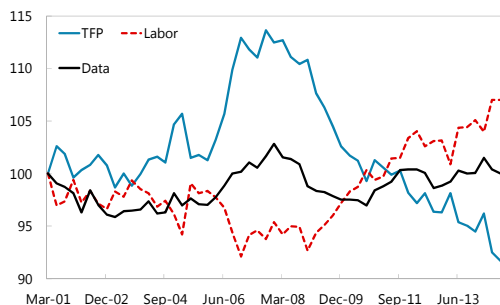


Explanatory power of each distortions

16. Labor and efficiency distortions have been the two most significant drivers of GDP. Counterfactual simulations suggest that no single distortion has been the sole driver of GDP. At the same time, in terms of the correlation between observed data and the counterfactual GDP path with only one distortion at play, efficiency and labor distortions stand as the most important drivers of GDP; such correlations are 0.28 and 0.11 for efficiency and labor, respectively. The correlation using only capital or bond distortions generate a correlation very close to zero.

GDP under Different Distortions

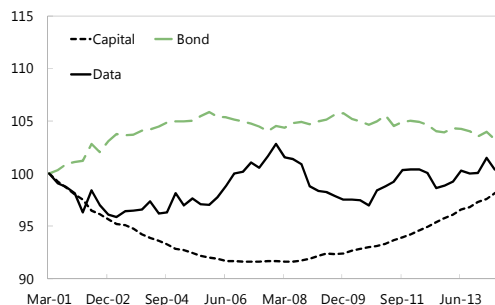
(2001Q1=100, detrended)



Source: Author's calculations.

GDP under Different Distortions

(2001Q1=100, detrended)



Source: Author's calculations.

Quantitative importance of labor distortions

17. The improvement in labor distortions since late 2008 has had important effects.

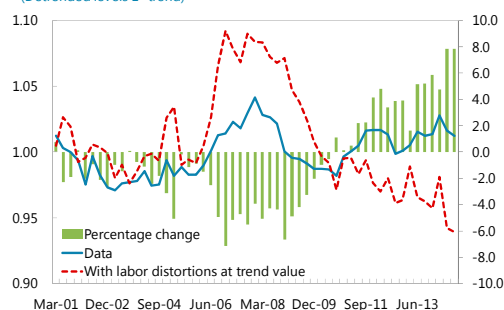
First, counterfactual simulations suggests that toward end 2014, GDP was about 8 percent higher than the level that would have resulted if labor distortions had remained at their trend value (top chart in accompanying panel). The framework used in this paper also sheds light on how that additional GDP comes about—this is an advantage of this framework vis-à-vis traditional growth accounting. In particular, the simulation suggests that the investment (and by consequence, capital) and employment would have been 8, and 12 percent higher, respectively, than in an equilibrium with labor distortions at trend value. The complementarity between investment and labor distortions is worth emphasizing. For instance, in essence, a key role of the 2012 tax reform was to tilt or bias production’s decision toward labor (or at least formal labor); the simulation suggests that in practice improvements in labor distortions can generate simultaneously a boost in labor and investment.

D. Conclusion

18. The analysis in this chapter confirmed the dominant role of labor and efficiency distortions in Colombia’s recent economic performance, also found in other cross-country

GDP and Labor Distortions

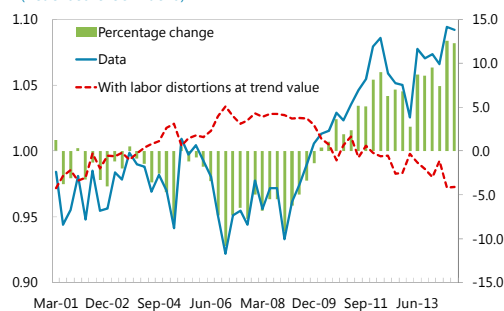
(Detrended levels 1=trend)



Sources: Haver and Fund staff estimates.

Employment and Labor Distortions

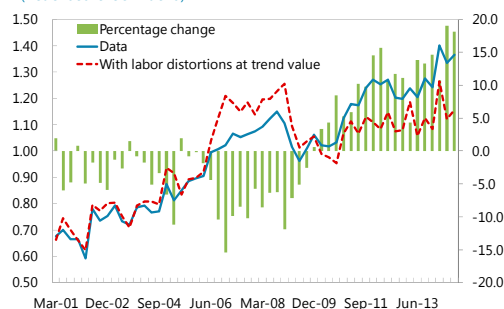
(Detrended levels 1=trend)



Sources: Fund staff estimates.

Investment and Labor Distortions

(Detrended levels 1=trend)



Sources: Fund staff estimates.

studies. This analysis suggests therefore, that to further understand the key factors including the effect of policies, it would be important to look into mechanisms and models that would generate changes in TFP as well as in any deviations from the neoclassical equilibrium condition for the consumption-leisure allocation.

19. The steady improvement in the labor distortions in Colombia since 2008, clearly deserves more analysis as its continued improvement going forward might represent an important offset to dimmer external conditions. As mentioned before, among potential fundamental drivers of labor distortions the literature has highlighted factors related to the financial burden of covering payroll expenses as well as the efficiency of the matching process between employers and employees. As preliminary evidence, the next table, shows a simple regression of the labor distortion identified by the model on commercial (real) lending rates and the level of labor formality in the economy. Regarding the latter, the implied conjecture is that a formal labor market involves a rather more established and, likely, less burdensome matching process. The regression results suggest these two factors have played an important role in the evolution of the labor distortion in Colombia (e.g. R-square>0.5); albeit they also leave a significant component of the measured distortion to be explained by other factors. The fitted values from the regression match well the overall path of the labor distortion except for values around 2012, when the regression generates a worsening but data suggests an improvement. Further, studying in more detail the earlier evolution of labor distortions around the 2002 labor reform could also shed light on specific structural drivers. For instance, despite that the reform allowed more flexibility of labor contracts and foster on-the-job training (apprenticeships) the measured labor distortions do not show a significant improvement. As discussed in IMF (2005), it is possible that the effects of that reform, however, might have taken some time to yield results in full.

Labor Distortions and Fundamentals 1/

Sample: 2007Q1-2014Q3

R-square: 0.533

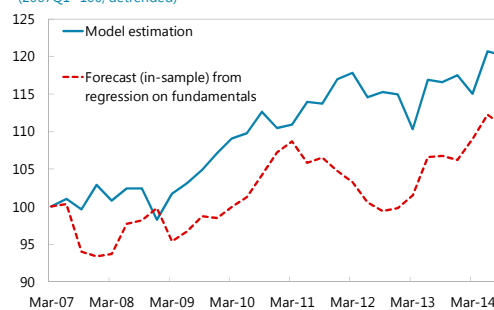
	Coefficient	P-value	t-Statistic
Real lending rate	-3.7	0.0	-5.2
Labor formality	1.1	0.002	3.4

Source: Author's calculations.

1/ Dependent variable, the labor distortion estimated by the model

All variables detrended. Regression applied in log-values.

Labor Distortions and Fundamentals (2007Q1=100, detrended)



20. Studying the direct impact of policies in the distortions identified in this paper, would be a fruitful agenda. A framework in which fiscal and/or monetary policy are allowed to interact with the basic dynamics presented here would allow the identification of how much of the changes in the distortions can be mapped to agents reacting to different policies. The role of structural reforms should also be explored. For instance, the results in this paper suggest that the ongoing efforts embedded in the national development plan (2014–18) to further improve labor formality as well as the platform for job hiring for the youth and women could have an important yield on reducing labor distortions and therefore on fostering employment and investment and ultimately GDP growth.

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UNEMPLOYMENT-GROWTH TRENDS IN COLOMBIA AND SELECTED EMERGING MARKETS¹

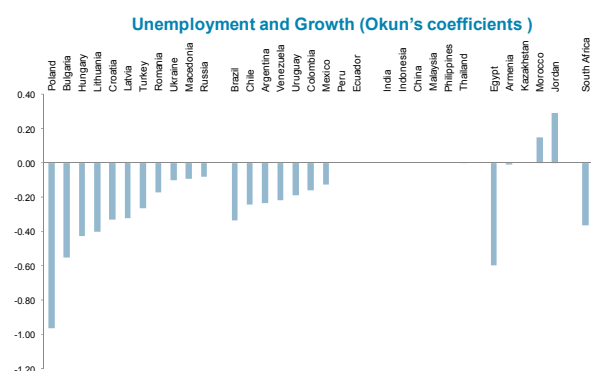
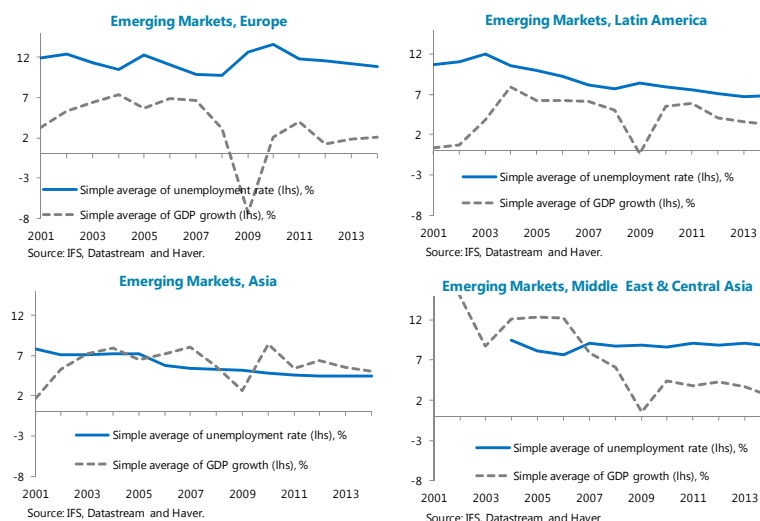
1. The relationship between unemployment and economic growth differs vastly across emerging markets (EMs).

This relationship is strongest in EM Europe, where the global financial crisis (GFC) led to a sizable increase in the unemployment rate. And while unemployment has gradually decreased in line with the recovery, the level of unemployment remains above pre-crisis levels. The picture is different in Latin America, where

unemployment continued on a strong downward trend, after a small and short-lived increase in unemployment during the GFC, despite lower post-crisis growth. The continued decline possibly suggests that structural rather than cyclical factors drive recent labor market improvements. In Asia and the Middle East, the relationship between economic growth and labor markets remains extremely weak, although data availability in these countries is very limited and often only covers major cities.

2. Okun's coefficients are estimated for selected EMs to measure differences in the unemployment-growth relationship.

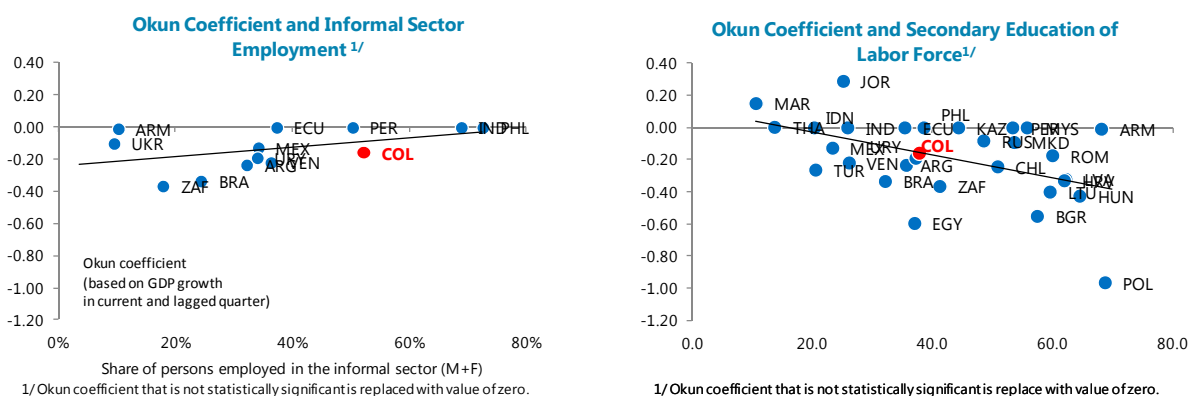
Okun's coefficients—first estimated by Okun in 1962 for the U.S.—capture the sensitivity of the unemployment rate to cyclical fluctuations in output. While the coefficients generally range between 0.3 and 0.4 for advanced economies, the EM average is significantly lower. The 2010 October WEO, for instance, finds that these coefficients for EMs average at about 0.10. We extend and refine this work by estimating dynamic country-specific Okun's coefficients for a larger set of EMs using seasonally adjusted quarterly data



¹ Prepared by Christina Kolerus (SPR). We would like to thank Luis Cubeddu (SPR) for the helpful comments.

for 2000Q1 to 2014Q4 (see text chart, non-significant coefficients are reported as zeros).² In line with the data trends described above, the Okun's coefficients are largest for European EMs, followed by Latin American EMs. No significance is found for Asian EMs, and in the Middle East, only Egypt displays sensitivity of unemployment to cyclical movements in the expected direction. In the case of Colombia, the unemployment rate decreases by 0.16 percentage points when GDP increases by one percent.

3. The large heterogeneity in these coefficients across countries and regions can be attributed to country specific labor market and economic structures. Comparing Okun's coefficients across countries and along various institutional and policy variables suggests that countries with greater degrees of informality and labor market rigidities (after excluding Asia and Middle East) tend to have to smaller Okun's coefficients. Meanwhile, education, a well developed services sector, and trade openness tend to be correlated with higher sensitivity of labor markets.

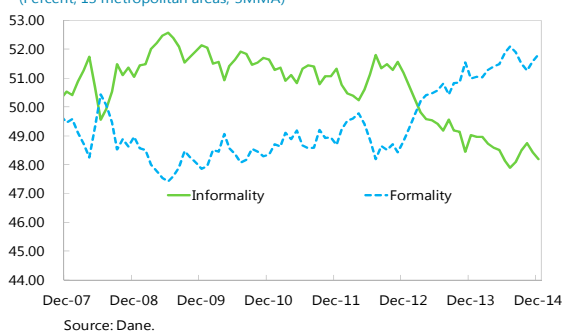
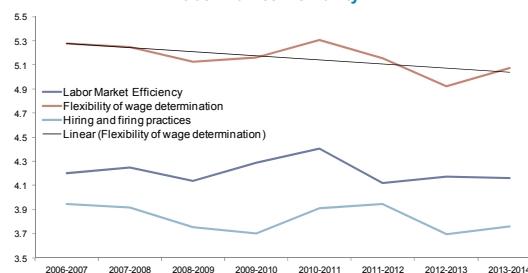


4. While Colombia's Okun's coefficient appears broadly in line with country characteristics, the sensitivity of labor markets to the cycle has decreased over time. The Okun's coefficient is somewhat lower than for its regional peers, but the higher degree of informality and the relatively less open economy could help explain this small difference. However, there is some evidence that the sensitivity of labor markets to output fluctuations may be falling (REO 2014). This is puzzling as informality has declined significantly in the past years while education levels and the service sector have strengthened. Both developments tend to be correlated with an increase of unemployment sensitivity to cyclical fluctuations. On the other hand, some measures of labor market flexibility, notably wage determination, have slightly worsened, which could have made markets more rigid and less able to adjust to the economic cycle.

² The optimal lag structure for both GDP and unemployment was determined using the Akaike's Information Criterion.

Informality and Formality Rates

(Percent, 13 metropolitan areas, 3MMA)

**Labor Market Flexibility****A. Conclusion**

5. The sensitivity of unemployment displays strong heterogeneity across countries. The degree of informality, labor market rigidities as well as openness and education play an important role in explaining those differences. While Colombia's Okun's coefficient is relatively small, it is broadly in line with cross-country experience. Empirical evidence suggests that the sensitivity of unemployment to cyclical conditions has decreased recently. While there is no normatively 'optimal' Okun's coefficient, a country with a favorable medium term growth outlook such as Colombia would rather benefit from a relatively strong sensitivity of unemployment to output. Policies which help translate economic momentum into improvements in labor markets would therefore be helpful, including further reducing informality, strengthening education, and removing labor market rigidities.

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YOUTH ENTREPRENEURSHIP INITIATIVES¹

A. Introduction

1. Colombia has significantly reduced its overall as well as youth unemployment rates over the past decade. Overall unemployment declined to 8 percent compared to 15 percent in 2001, while youth (14–28 yrs old) fell from 24 to 16 percent over the same period. Youth employment increased by 1.6 percent per year on average over the last 12 years. Because youth unemployment is believed to be closely related to the unequal education system in Colombia (see chapter 1), promoting entrepreneurship is seen as a way to overcome youth unemployment and inequality. According to surveys, in 2013 the propensity to start a new enterprise was strongest in the age group 35 to 44 years (30.6 percent) followed closely by the group 25–34 years (25.8 percent) and up from 2012. Colombia has a national strategy on entrepreneurship and is also engaged in regional initiatives including other Latin American countries.

B. Government Initiatives

- Colombia has recently developed a youth entrepreneurship strategy—Colombia Joven Emprende 2013—which is part of the presidential program on youth. Since 2000, the program has partnered with the private sector to support youth entrepreneurship through training and learning programs, as well as expanding social networks by leveraging through universities. The strategy in 2014 shifted to cultural entrepreneurship, creating information points where youth can find out about government and international initiatives to strengthen cultural industries.
- The Rural Micro-enterprise Assets Program (Oportunidades Rurales) provides some 32,000 families with training and skills needed to build successful businesses. Run by the Colombian Ministry of Agriculture and Rural Development, Oportunidades Rurales focuses on investing in rural micro-enterprises, capacity building and knowledge sharing. This US\$32 million program has US\$20 million in IFAD funding.

¹ Prepared by Izabela Karpowicz.

C. Other National and International Efforts

- Colombia has an active civil society with many organizations focused on promoting youth development, through churches, clubs, universities and other actors. One organization that provides civic participation opportunities is the Corporación Grupo Tayrona. Formally established in 1999, this organization operates the Training School for Youth and the Environment, which provides knowledge and skill-building for young people ages 14 to 30, in an effort to encourage their involvement in environmental and sustainable development and conservation efforts.
- Another similar organization is the Terpel Foundation, launched in November 2004 by Terpel S.A., the largest gasoline distributor in Colombia. The Foundation's projects and programs focus on civic commitment, and civic and cultural education. One of its main programs, the Citizenship Education Program is currently being implemented in the country's three largest cities and aims to increase leadership and promote young people as agents of change in the way people behave in public spaces.
- The main objective of the Promotion of Youth Entrepreneurship Project, funded by the IADB, is to strengthen the entrepreneurial fabric of Bogotá, Medellín and Cali by developing a model for creating competitive enterprises for the youth. The components of the project include: innovation and training activities, network access, and dissemination of results.
- Youth Business International is a coordinated approach to support deprived communities across the country in areas including social housing, education, culture, rural and environmental development, and social development. This program aims to create 500 businesses dedicated to youth within the first three years.
- Fundación Colombia Joven is a non-profit organization dedicated to strengthening the capacity and abilities of vulnerable youth in rural communities to actively participate in the development of sustainable, just and harmonious societies. In partnership with Canada World Youth the foundation provides training and technical assistance through hands-on learning experiences in community service projects.
- The Network for Teaching Entrepreneurship provides textbook-based and experiential programs that inspire young people from low-income communities to stay in school, to recognize business opportunities and to plan for successful futures. The programs are highly collaborative and reliant on strong partnerships with local school districts and teachers.
- The Park of Creativity is an innovation-driven program whose main aim is to encourage and support young people's efforts towards creativity and invention, as well as technology commercialization. The ideas are patented and granted intellectual property rights after which the innovations are ready to be exploited, either through technology license-out or by inventors' own start-up companies, through venture capital or other types of early stage business support.

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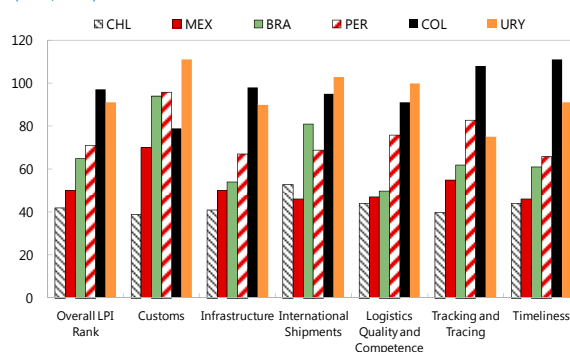
INFRASTRUCTURE INVESTMENT¹

Colombia posted very strong growth over the past decade, yet the large infrastructure gap, particularly in road transport, hinders the country's potential growth and competitiveness. The recent reforms in the regulatory and institutional framework were aimed to address past failures, establish a risk sharing mechanism, incentivize private sector participation, and enhance implementation efficiency of infrastructure investment projects. The authorities' ambitious fourth generation (4G) infrastructure investment program of road concessions over 2014–22 is expected to integrate Colombia's regions, foster inclusive growth, boost competitiveness, and generate notable socioeconomic benefits.

1. Colombia's economy experienced impressive growth over the last decade (4.8 percent on average), yet poor infrastructure quality remains a drag on Colombia's potential growth and competitiveness. The total infrastructure investment in Colombia has been volatile averaging 4.6 percent of GDP in 1995–2004 and only over the last decade it steadily increased to above 7 percent of GDP in recent years.² Bottlenecks in fiscal, legal, and environmental areas have been the main impediments for infrastructure investment, with the transport sector being the most affected. Over the period 2002–08, transport infrastructure investment was below 1 percent of GDP per year and only in 2009–13 reached 2 percent of GDP. Across its financing components, the public investment share tripled from 0.4 to 1.2 percent of GDP over the period 2002–13, while the private sector share increased four times from 0.2 to 0.8 percent of GDP.

2. Colombia's infrastructure gap is most acute in road transport. Various studies indicate that infrastructure quality in the country is relatively low and logistic costs are high both at regional and global level. In the World Bank's 2014 Logistics Performance Index, Colombia ranks 97th among 160 countries, one of the worst performers relative to regional peers, with the poorest outcomes in infrastructure, timeliness, and tracking and tracing. The country ranks 93th among 189 economies in the World Bank's 2015 Doing Business indicator related to ease of cross-border trade, which

Logistics Performance Index
(Rank, 2014)



¹ Prepared by Kristine Vitola. We are grateful for comments from Valerie Cerra (WHD), Poldy Paola Osorio Alvarez (ANI), Sergio Clavijo (ANIF), Andres Mauricio Velasco Martinez (MHCP), and Juan Pablo Espinosa (Bancolombia).

² National Planning Department.

predominantly highlights the country's high inland transportation costs and time in performing a foreign trade transaction. In particular, exporting/importing costs in Colombia are mainly associated with inland transport, and these costs are more than double the LAC and OECD averages. Furthermore, World Economic Forum (WEF 2014–15) ranked Colombia 126 among 144 countries in terms of road infrastructure quality, the lowest ranking in the country's overall infrastructure quality (ranked 84) and the worst performance among regional peers. The gaps in port and airport infrastructure are less significant, although most of them are already operating at full capacity, and this will only worsen with increased trade and passenger demand.

3. Upgrading transport infrastructure would help integrate regions, boost competitiveness, and foster inclusive growth.

The lack of roads and deficient road conditions are obstacles to rural areas' connection to the rest of the country. Isolation hinders access to public services, precludes selling of products to larger markets, limits economic opportunities, and restrains regional integration and competitiveness. While upgrading national road network through concessions are important to connecting rural areas with markets, improving the connectivity and quality of secondary and tertiary roads is crucial for both regional development and reducing rural poverty.

4. In 2010–14, the authorities undertook several measures in the regulatory and institutional framework to address past failures and enhance implementation efficiency of infrastructure investment projects.

Institutional framework was strengthened by creating the Vice-Ministry of Infrastructure, the National Infrastructure Agency (ANI), and the National Development Bank (FDN). In 2012, a new PPP law was passed which significantly addressed the past bottlenecks and aimed at regulating PPPs in a systematic manner. Progress was also made in expediting the Infrastructure Law by addressing the bottlenecks in relocation of utilities networks and purchase of land.

5. Significant changes for infrastructure development were introduced with the adoption of Law 1508 of 2012 on PPPs.

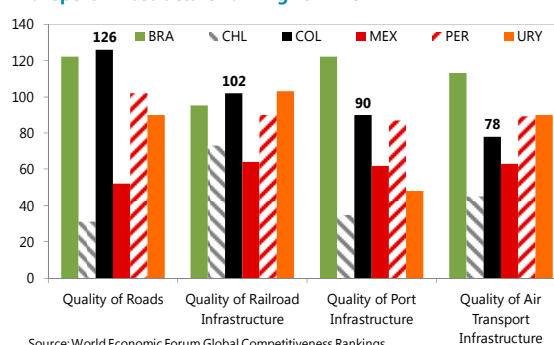
The legal and regulatory framework governing Colombia's PPP has evolved over time since its first adoption in the mid-1990s. The government's continuous efforts to improve the framework have resulted in the successive modifications to it. Before the implementation of the PPP scheme (first, second, and third generation road projects) the projects imposed high leverage on public resources given the low proportion of equity capital of the license holders and institutional investors. This created a system of poor incentives to private sector

2015 Doing Business Indicators



Source: 2015 Doing Business Indicators.

Transport Infrastructure Ranking 2014-15



Source: World Economic Forum Global Competitiveness Rankings.

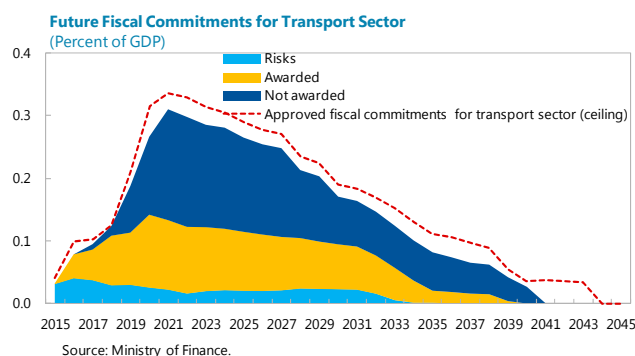
participants and led to delays in completion of the works, lawsuits, fines, additional works, extra costs, timetable slippage, and, therefore, financial imbalances in the contracts. The 2012 law on PPPs modified several important aspects of the previous PPP framework, mainly: (i) eliminated the possibility for the private sector to request cash advances; (ii) limited amendments to PPP contracts to a maximum of 20 percent of the value of the original contract; (iii) linked government payments to the quality of infrastructure services provided; (iv) required that the decision to pursue a PPP should be based on sound socio-economic and technical studies; (v) clearly stated the responsibilities of the parties involved in the PPP process both for public and private initiatives; (vi) included an improved gateway process for the Ministry of Finance and Public Credit (MFPC); and (vii) regulated unsolicited proposals for PPPs. In addition, the law introduced as a general principle that risks should be borne by the partner (i.e., the public or private sector) that is better suited to handle them. This has significant implications for the capacity of the government to manage fiscal costs and risks arising from PPPs.

6. The authorities are undertaking an ambitious 4G infrastructure investment program.

The program would comprise about 28 projects under public initiative and 21 project under private initiative with total investment of about Col\$57.4 trillion (US\$24.5 billion) over 2014–22 (about 7.5 percent of 2014 GDP).³ Implementation of the public initiative projects is planned in three waves: 10 projects in the first wave totaling about US\$5.2 billion, 9 projects in the second wave amounting to US\$5.2 billion, and 9 projects in the third wave of about US\$5.2 billion. The first wave projects have already been awarded and financing agreements are expected by the end of this year. Upon completion of the bidding process for the second wave projects, which is open until May, financing agreements should be achieved within a year. Bidding for the third wave projects is in preliminary stage. In addition, the government has approved 5 private initiatives, 11 projects are in a feasibility phase and 5 projects in a pre-feasibility stage, with total investment of about US\$8.9 billion. The execution of contracts will take place in three stages: the first is known as the preoperative stage, which in turn is subdivided into a preconstruction phase and a construction phase; the second is the operation and maintenance stage; and the third is the transfer stage in which the concessionaire hands over the infrastructure associated with the project to the ANI to complete the contract.

7. In order to finance investment of such magnitude, concessionaires will need to attract funding from various sources.

Authorities estimate the following structure of potential financing: (i) local banks lending 30 percent of total private investment; (ii) foreign debt (including multilateral institutions, banks and institutional investors)



³ Information provided by the ANI in May, 2015. The data is different from the one reported in “Colombia—Staff Report for the 2015 Article IV Consultation”, which was obtained during the 2015 Article IV consultation in March.

providing 26 percent of funds; (iii) equity of the concessionaries (domestic and foreign), with 20 percent of the total; (iv) debt issued to local institutional investors (14 percent of total), attracting these investors for the construction stage; and (v) FDN and multilateral institutions (10 percent of total). After the construction phase, project maintenance and repayment of debt which was incurred in the construction stage would be financed from the concessionary tolls, future cash appropriations from the budget (*vigencias futuras*), and income from commercial activities by providing additional services in the concession area.

8. The new PPP law specifies that the private partner or concessionaire must take the form of an autonomous trust. Its sole purpose is executing the contract for the project awarded to it, with resources administered by a trust company (Figure 1). This must use equity capital or debt to finance the construction of the infrastructure project, which would be divided into functional units. The latter refers to each of the divisions of the project, corresponding to a set of engineering structures and installations that are essential for the provision of services that have functional independence, i.e. those which can operate individually. Then, the private partner will be entitled to receive remunerations accordingly from the three sources mentioned above, as and when each of the fully constructed functional units is delivered in compliance with specific quality standards predefined in the contract. This seeks to align incentives for the private partner to build quickly, and to that extent it is entitled to receive its remuneration, but also to build with good quality materials, as, for the private partner, this will mean fewer resources invested in the operation and maintenance stage.

9. The autonomous trust will play a crucial role in the development of the project, as it will act as an accounting and payment center. This autonomous trust will be financed with capital injections from the concessionaire,⁴ with the debt that the latter will obtain from the lenders through a loan contract, contributions from the ANI (budgetary cash appropriations), income from tolls, and development of commercial activities. By contrast, the autonomous trust will make payments to the concessionaire (remunerations) and to its contractors, to the lenders (debt servicing), and to the agent contracted by the ANI. The trust will be administered through a trustee agreement, entered into by the concessionaire and a trust company.

10. According to scenario analysis, Colombian banks have sufficient capacity to help finance the 4G infrastructure program. The financial system supervisor (*Superintendencia Financiera de Colombia*, SFC) ran a macro-financial scenario to gauge the banking system's capacity to fund US\$14 billion of 4G PPP-based road infrastructure projects. The scenario assumed IMF staff's baseline macroeconomic projections for 2016 and 2017 and normal growth of credit and

⁴ The capital contributions from the concessionaire (or equity transfers) are mandatory in nature and must be deposited in the autonomous trust for predetermined periods, which are agreed between the lender and the concessionaire, or by the ANI, during the structuring of the contract. The concessionaire may make these equity transfers with capital contributions from the partners, from placing of shares, or by debt acquired by the partners that is subordinated to the senior debt.

provisioning. The results indicate that bank financing for 4G infrastructure investment is manageable without crowding out lending to other sectors or unduly increasing concentration and banks could maintain strong capitalization. The authorities are optimistic about bank's appetite for financing the 4G projects, including because of lower business prospects for other credit lines due to the cooling of the consumer lending cycle and slowdown in activity.

11. Recent amendments in the regulatory framework were introduced to incentivize investment in infrastructure projects by domestic institutional investors. While pension funds and insurance companies are the largest institutional investors in Colombia, with available resources that could be used for long-term investments, lack of available market instruments and regulations until recently did not incentivize them to participate in the financing of large projects. On April 28, 2014, the government amended the regulatory framework relating to individual credit limits and investment regimes of institutional investors which: (i) increases the individual borrowing limit of credit institutions from 10 percent to 25 percent of regulatory capital, provided that the excess is used to finance 4G infrastructure projects under the PPP scheme; (ii) expands the individual quota limit of indebtedness of the FDN from 10 percent to 40 percent of regulatory capital, provided that the excess is used to finance 4G infrastructure projects; and (iii) allows mandatory pension funds (FPO) with moderate risk and life insurance companies to invest up to 5 percent of their portfolio (up to 7 percent for the high risk FPO) in private capital funds which allocate at least two thirds of their investment-related financing to infrastructure projects under the PPP scheme.

12. New instruments developed by the FDN are also expected to facilitate institutional investor participation in project financing. The FDN introduced several instruments to hedge creditor risks: subordinated debt, partial guarantee, and senior debt.

- Subordinated debt would be provided to a special purpose vehicle (SPV) at the beginning of the construction phase for 20 years with a grace period of 8 years, interest rate of CPI plus 9–10 percent, with a possibility to capitalize the interest up to 35 percent of the initial subordinated debt value. This structure will help lessen the pressure over the equity, improve the project expected return and reduce the expected loss of the senior creditors.
- Partial guarantee will serve as a mechanism to cover liquidity risk during the operation and maintenance period. It will be provided to the SPV but the beneficiaries would be the bond holders, as this product is aimed at a capital market issuance. The guarantee will cover the mandatory bond service in case of insufficient cash flow generated by the project as well as in the event of a project's early termination up to two years. It will work as a revolving credit line with a limit up to 20 percent of the bond outstanding.
- Senior debt will be provided to the SPV at the beginning of the construction phase for up to 18 years with a grace period of the expected construction length.
- Besides these three offered products, upon request by the private sector the FDN is currently developing new instruments: a subordinated contingent credit line to cover cost overruns, a senior contingent credit line to advance the cash from the budgetary future cash appropriations,

and a project bond structure to promote the financing of the projects through the capital market.

13. Execution of private and central government projects in the pipeline would maintain the dynamism of transport infrastructure investment of the recent years. Over the whole financing period, transport infrastructure is projected to be front-loaded requiring investment of about 2.1 percent of GDP on average per year in 2014–22 (Table 1). This would occur assuming that all concessions of the 4G program are implemented with financing agreements for the three waves of projects via attracting private capital and leverage of multilateral institutions through FDN.

	2014-2016	2017-2019	2020-2022	2014-2022
Central government financing	0.7	0.6	0.3	0.6
Subnational financing				
Departments	0.1	0.1	0.1	0.1
Royalties	0.3	0.3	0.3	0.3
Adaptation fund	0.1	0.1	0.1	0.1
Private financing				
Domestic equity	0.1	0.1	0.03	0.05
FDN-multilaterals	0.1	0.1	0.1	0.1
Domestic banks	0.4	0.4	0.2	0.3
Private capital funds	0.2	0.2	0.1	0.1
Foreign banks	0.3	0.3	0.2	0.3
Foreign equity	0.2	0.2	0.1	0.1
Central government financing	0.7	0.6	0.3	0.6
Subnational financing	0.5	0.5	0.5	0.5
Private financing	1.2	1.2	0.6	1.0
Total	2.4	2.3	1.4	2.1

Sources: Ministry of Finance and Public Credit; DNP; ANI; and Ministry of Transport.

14. Successful implementation of 4G infrastructure investment agenda with private sector participation would generate fiscal savings of about 0.2–0.4 percent of GDP per year. ANIF (2014) estimated potential fiscal costs in case of lack of private sector participation in the 4G projects. To this end, a public works index (PWI) was constructed to prioritize 4G concession projects that could be implemented by means of public works if some risks related to project implementation from the private investor’s perspective would impede materialization of strategic projects in terms of regional competitiveness-connectivity.⁵ According to the PWI, about a half of the second and third wave projects were characterized by high construction risk and high impact in terms of regional connectivity and at most risk for being implemented through public works. Other

⁵ PWI consists of five indicators: (i) the existing traffic and potential traffic as proxies of future demand for a certain road corridor; (ii) geological and construction risk, where engineering complications augment the potential of unforeseen risks and cost overruns requiring larger injections of public resources; (iii) investment amount; (iv) the percentage of construction corresponding to new works, where it is assumed that this type of construction could be better executed by public sector (given the aforementioned risks); and (v) regional competitiveness-connectivity, where the government should expedite strategic projects without expecting financial closure by the private sector that could result in delays or termination of certain projects. Larger weights are attributed to the variables that capture future demand of roads (potential traffic), construction risk, and connectivity-multimodality risk, all of which have 20 percent weight in the index.

projects were classified either in the intermediate (uncertainty) range—implying they would likely be carried out either through public or private financing, or combination of both—or as most likely to be implemented via private sector concessions. Implementation of the additional projects with the highest probability to be carried out through public works would result in public deficit of 2.3 percent of GDP in 2018 and 1.2 percent of GDP in 2022, requiring 0.2–0.3 percent of GDP adjustment in other budget items to meet the fiscal rule targets. Assuming that in addition to these projects the government would also implement and finance the projects that were classified in the intermediate range, overall public deficit would increase to 2.4 percent of GDP in 2018 and 1.3 percent of GDP in 2022, i.e. respectively 0.4 and 0.3 percent of GDP higher deficits than required by the fiscal rule.

15. 4G infrastructure investment is expected to boost Colombia’s potential growth and competitiveness. According to CONPES (2013), infrastructure investment would raise potential growth from 4.6 percent⁶ to 5.3 percent by 2024, including the productivity gains stemming from reduction in time necessary for goods transportation and better availability of road network. This impact on potential growth would come along with larger interconnectedness between the sectors and regions of the economy. Total factor productivity (TFP) with the new investment stimulus is expected to increase from baseline 0.7–0.8 percent per year to 1–1.3 percent in 2019–24. Likewise, investment rate would rise from about 30 percent of GDP to 32 percent in 2017–19 and remain about 1 percent of GDP above the baseline scenario in the following years. Time savings between the major Colombia’s cities and ports would range between 25 percent (Medellin – Cartagena) and 47 percent (Medellin – Cali). In view of reduced travel time and costs of vehicle operation, 4G projects are expected to generate cost savings between 16 percent in case of Medellin – Cartagena route and 30 percent for Medellin – Cartagena corridor.

16. Road infrastructure upgrade is also expected to generate notable socioeconomic benefits. CONPES (2013) estimates that the planned investment will boost employment in almost all regions and help reduce unemployment rate to about 7.6 percent by 2024.⁷ In addition, better connectivity will allow extend influence areas of the major cities by improving supply of qualitative public services in rural areas. Less travel time will also give impulse to tourism development in traditionally isolated regions thus generating opportunities for employment and investment.

17. The recent changes in the legal framework established a risk sharing and mitigation mechanism to enhance implementation efficiency of 4G infrastructure investment projects. The most notable change is the gradual shift of risks associated with PPPs from the government to the private sector. This shift reflects the attempt of the government to move away from the previous practice of overcompensating private sector concessionaire and to attract new financial investors. In addition, to ensure the most efficient implementation of the investment program, risks are assigned

⁶ Projected scenario in the Medium-Term Fiscal Framework (MTFF).

⁷ Under the baseline scenario, unemployment rate would decline only marginally to 8.7 percent.

to the contractual party which is in the best capacity to deal with them and manage different mechanisms of risk mitigation (Table 2). Such risk management is expected to minimize costs of risk mitigation and control. In particular, it refers to risks assumed by the government which are susceptible to translate into contingent liabilities, as described further.

- **Fiscal risk.** After the global financial crisis of 1997, Colombia put into effect law Act 448 of 1998 which regulates the budget management of contingent liabilities. A year later, the DNP estimated contingent liabilities of the nation at 154.1 percent of GDP, confirming the importance of the issue and the need to manage it. Law Act 448 requires national and state entities to include in their debt servicing budgets the necessary appropriations so that potential losses from contingent liabilities in their care are covered. State agencies required to appropriate contingent liabilities are to make contributions to the contingency fund for state entities in order to provision the risks. In line with this, the MHCP has developed methodologies for assessing and valuing contingent liabilities in infrastructure PPP projects. The contingent liabilities include revenue guarantees (guaranteed income mechanism, expected income), currency risk, environmental risk, and geological partial guarantees. The evaluation process is done on a case-by-case basis and determines whether contingent liabilities exist and whether the project must contribute to the contingency fund. As referred by KECG (2013), only a handful of countries have legal provisions for contingent liabilities, and Colombia has become an example at the regional level for having established standards for budgeting, accountability and fiscal transparency.
- **Land risk.** This risk is related to the necessity to obtain land in order to execute the project and supply infrastructure services complying with the availability and quality requirements. It is associated with two main causes: (i) land acquisition management, which falls under the responsibility of the concessionaire, and (ii) costs of land acquisition and corresponding socioeconomic compensation which would be covered by a partial guarantee of the ANI and financed from the contingency fund. The partial guarantee to cover cost overruns of land acquisition would be structured as follows: (i) between 100 and 120 percent inclusive, the concessionaire assumes all costs; (ii) between 120 and 200 percent inclusive, the concessionaire contributes 30 percent and the ANI—the remaining 70 percent; and (iii) above 200 percent, the ANI assumes all cost overruns.
- **Environmental commitment risk.** It corresponds to the necessity to obtain environmental licenses or other permits, licenses and concessions of environmental nature that are required to execute the project and comply with the indicators of availability and quality of services. This risk is associated with: (i) management of regulatory permits (responsibility of a concessionaire); (ii) costs of socio-environmental compensation (shared under the same abovementioned mechanism of covering cost overruns of land acquisition); and (iii) unforeseen actions required by the environmental authorities, incurred after expediting of the license and not attributable to the concessionaire (responsibility of the ANI).
- **Political/social risk.** Refers to an impossibility to install, relocate or move tollbooths in projects, which would entail variation in potential income flows of the concessionaire. This risk will be

assumed by the ANI and covered by the contingency fund. Likewise, the risk of violation of the right of way would be assumed by the concessionaire, which will require implementing measures of vigilance and protection of the relevant corridors and receive support of the local authorities in cases dealing with restitutions of the right of way.

- **Utility network risk.** Refers to a commitment to transfer or relocate the networks of services or protect them and thereby avoid interference with the project design. In case of risks entailing large costs due to network interference, a partial guarantee would be applied as in case of the abovementioned land acquisition and environmental compensation.

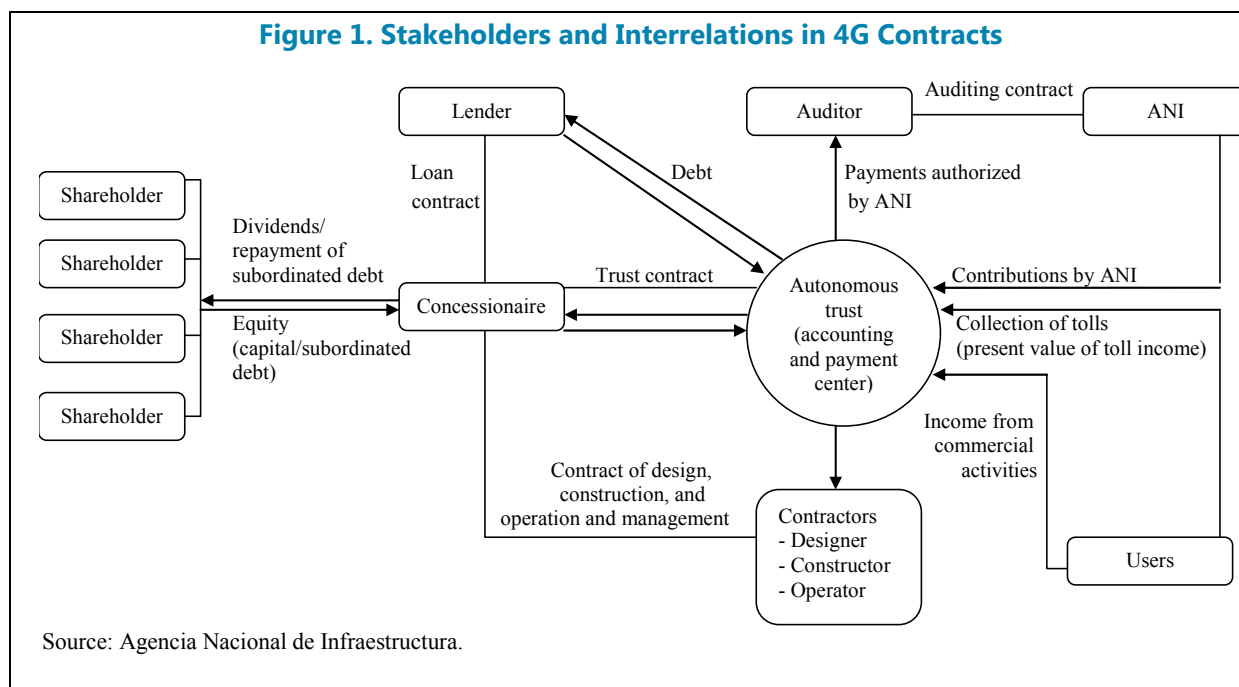
- **Traffic/commercial risk.** This risk implies deviation in the present value of income flow from tolls vis-à-vis income projections estimated by the ANI during the structuring and awarding of projects. Importantly, income projections which depend on traffic are related to macroeconomic variables which are exogenous to the project development and therefore beyond the control of the concessionaire who is in charge of efficiently managing the quality and availability of infrastructure services provided by the projects. In order to ensure a long-term financing of the project during its operation and maintenance stage and given a notable degree of uncertainty in estimated future traffic that affects income projections, the authorities have created a relevant risk-coverage mechanism. To this end, the commercial risk will be assumed by the state, whereby the concessionaire will be compensated during certain periods of the contract term in cases when actual income from tolls falls below the projected and income shortfall is caused by deviations in traffic projections. Such compensations will be managed through the resources contributed to the contingency fund.
- **Currency risk.** It is associated with potential losses or gains in case the concessionaire obtains external financing for the project, where liabilities will be denominated in dollars, while income flow—in pesos. Currently, a partial mitigation of currency risk is granted by fixing the rate at which budget transfers are made in foreign currency. In particular, the government has approved 25 percent of total future cash appropriations from the budget in U.S. dollars for the first wave projects and about 40 percent for the second wave projects. However, if additional quota in dollars is required, the MFPC will estimate the impact on fiscal sustainability from disbursing future cash appropriations in dollars above the existing limits.
- **Regulatory risk.** In cases when amendments in regulatory framework change the contractual scheme of toll tariffs, the corresponding compensation to the concessionaire will be covered from the contingency fund. Likewise, when regulatory changes imply modifications in technical specifications of the projects, the risk and associated costs will be assumed by the ANI.

Table 2. Distribution of Risks

Sponsor Risks	Shared Risks	ANI Risks
<ul style="list-style-type: none"> • Construction (except tunnels) • Operation and maintenance • Financing • Change in construction, operation, and maintenance input prices • Land acquisition management (with supervision of ANI) • Insurable Force Majeure events • Traffic (liquidity) • Macroeconomic 	<ul style="list-style-type: none"> • Construction (tunnels) • Land acquisition (cost overruns) • Environmental and social management (overruns in environmental compensations) • Utility networks (overruns) • Currency 	<ul style="list-style-type: none"> • Force Majeure events <ul style="list-style-type: none"> - Non-insurable events (e.g. natural disasters) - Delays in land acquisition - Delays in social consultation - Delays in environmental licensing • Traffic (aggregated income) • Utility networks (non-identified networks) • Regulatory

Source: *Financiera de Desarrollo Nacional* and CONPES (2013).

18. Hence, risks associated with the 4G infrastructure investment projects would be borne by the party that is better suited to handle them. The risk sharing mechanism will help ensure that the private investors have the support and guarantees to undertake the financing of the projects. This support would become effective with a limited uncertainty in the income flow for the project, given the mechanisms for risk mitigation created by the ANI and products developed by the FDN. In its turn, private sector participation and safeguards provided by the contingency fund would limit fiscal risks for the government.



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INFORMAL FINANCE AND FINANCIAL INCLUSION POLICIES¹

This chapter studies the determinants of informal finance in two household surveys and describes the most recent policies to foster financial inclusion. Financial education and schooling are both important for fostering formal finance use, as are labor formalization and income growth. Over the past year, the main achievements on the financial inclusion front have been the launch of the electronic money issuers license and the implementation of the centralized electronic movable property registry. In parallel, various national institutions are coordinating to provide financial education through schools and media, which should also contribute to financial system stability.

A. Introduction

1. **Including population into the formal financial sector has been the objective of many countries as a vehicle to improve the status of the poor and foster equality.** While the concept of financial inclusion may not be well defined in the literature, financial inclusion policies mostly focus on the needs of financially-constrained households and enterprises, and target access and effective usage of *formal* financial services. By channeling savings to productive use, formal financial inclusion is believed to support enterprise creation and investment, and boost economic growth, pulling individuals out of poverty. Formal financial inclusion can also help individuals cope with shocks, offering opportunities for consumption smoothing, and dampen prospective income inequality by ensuring stronger initial conditions for the poor.
2. **Informal finance, however, continues thriving, also in those countries that have made important progress in expanding coverage of formal finance.** Including in urban areas, where presence of formal institutions is more prominent, individuals and enterprises with formal access sometimes use also informal channels for savings and borrowing, suggesting that these two seemingly opposing worlds of formal and informal finance can complement each other in some way in satisfying their financial needs. Yet, the role of informal finance is often overlooked by policy makers who consider people without formal financial access purely unbanked.
3. **Further progress with formal financial inclusion in Colombia will benefit from better knowledge of the advantages provided by informal finance from the point of view of its users.** As a starting point, the profiles of informal finance users should be determined and obstacles

¹ Prepared by Izabela Karpowicz and Zulima Leal (both WHD). We are grateful for comments from Valerie Cerra, Robert Rennhack (both WHD), Pamela Cardozo Ortiz (Banrep, Colombia), and Jorge Castano Gutierrez (SFC, Colombia). For fruitful discussions and data we are indebted to David Salamanca (Financial Regulation Unit at the Ministry of Finance, Colombia) Sergio Renjifo (Confecamaras, Colombia), Nidia Reyes and Juliana Alvarez (both *Banca de las Oportunidades*, Colombia).

that prevent access to formal finance must be understood. This information could provide a basis for developing products targeted to the unbanked and designing “second generation” financial inclusion policies that provide consumption smoothing and investment opportunities which may currently be untapped or offered also through informal finance. In this paper, we attempt to contribute to the study of informal finance based on available household surveys in Colombia. We then describe the most recent government’s financial inclusion initiatives, and track their early effects.

4. Our study presents some novelties. This is the first study based on a new households survey on the financial burden of households in Bogotá. Moreover, while two other empirical studies touch upon the determinants of informal finance in Colombia, this is the only one that considers the link between informal finance and informal work explicitly.²

B. Informal Finance in Recent Colombian Surveys and Literature

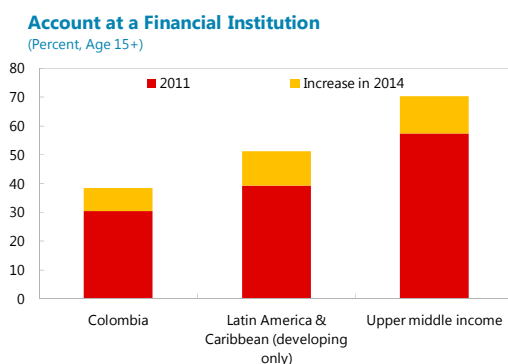
5. Colombia’s swift progress with financial inclusion has been documented in national reports as well as in studies conducted by multilateral and private sector institutions.

According to the 2014 Global Microscope, for instance, last year’s top financial inclusion achievers in Latin America were Peru and Colombia, who both display strength in policies and environment, in areas beyond microfinance, ranking as the top five in most of the indicators across the board. Colombia and Peru are both global leaders in prudential regulation and rules for deposit-taking, and have good standards on regulation for microcredit and microinsurance (Global Microscope, 2014). On the supply side, the long-term financial inclusion strategy has resulted in a wealth of statistical information on financial access (physical presence of financial institutions), “bancarization” (adult population coverage), penetration by financial products, and financial transactions which are rigorously documented with high frequency. The quarterly *Informe de inclusión financiera*, carried out by Colombia’s Asobancaria reports on financial products coverage of population by municipality. As a result of work carried out jointly between the Financial Superintendence (SFC) and the *Banca de las Oportunidades*, program to assist those with limited access to banking services, it was decided to produce also an annual report (*Reporte de inclusión financiera*) as a basic input for analyzing financial inclusion and, since 2011, four such reports have been published describing the state of access and use of financial services. In addition, the central bank publishes the annual *Informe especial de inclusión financiera* which studies some aspects related to access and usage of financial services. On the other hand, households and enterprise surveys have documented users perceptions which can support the analysis of financial inclusion from the side of the demand.

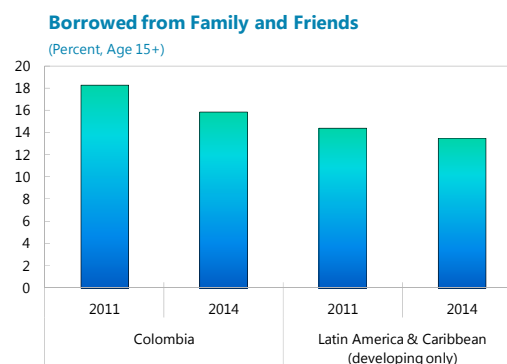
6. Progress with formal financial inclusion has been impressive over recent years, yet, a large share of population continues to use informal finance. The share of adult population owning an account at a formal financial institution has increased from 30 to 38 percent between

² Cano et al. (2014) study the use of financial services in Colombia in an OLS and QMLE regression framework. Reddy et al. (2013) use OLS and simple correlations to study financial capabilities and financial knowledge.

2011 and 2014 in Colombia but is below Latin America and upper middle income country average. Although small, the share of adult population saving formally has also increased from 9 to 12 percent. Moreover, formal saving and borrowing indicators have improved especially among the 40 percent bottom income population over this period as well. However, informal finance, although declining in some dimensions, is more prominent than in comparator countries and continues to coexist with formal finance, both as substitute and complement in providing financing options accessible through formal channels in urban areas.



Source: Global Financial Inclusion Database, The World Bank.



Source: Global Financial Inclusion Database, The World Bank.

7. Preference for cash in financial transactions is strong in Colombia, and could be associated to informal finance. In the literature, preference for cash is found to be closely linked with the use of informal finance for savings and borrowing while both depend on individuals' work status, income, age and education across different countries.³ Cash seems to work for the unbanked because they have already established mechanisms to deal with it, but also because cash is tangible, universally accepted, and does not require acquiring new technological skills. In turn, digital systems take a long time to develop, and can be complex. Digital payment services, however, can bring cost savings and increase efficiency especially in remote areas and for rural communities. Digital financial services, moreover, provide clients with greater privacy and safety while cash offers opportunities for corruption and tax evasion. While large volumes payments are made digitally in Colombia (almost 70 percent in 2012), the majority of small and medium value payments (90 percent) are still made in cash. In particular, consumer purchases are found to be lagging mainly because of high cost for merchants to enroll in the programs, generally low usage (acceptance) of debit cards, and the inability of merchants to retain the VAT (Better than Cash, 2015).

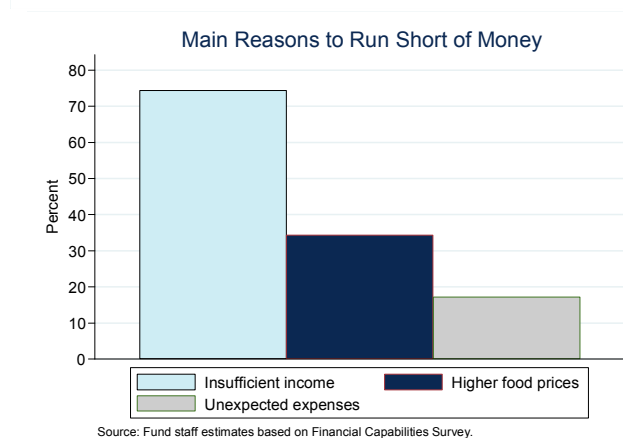
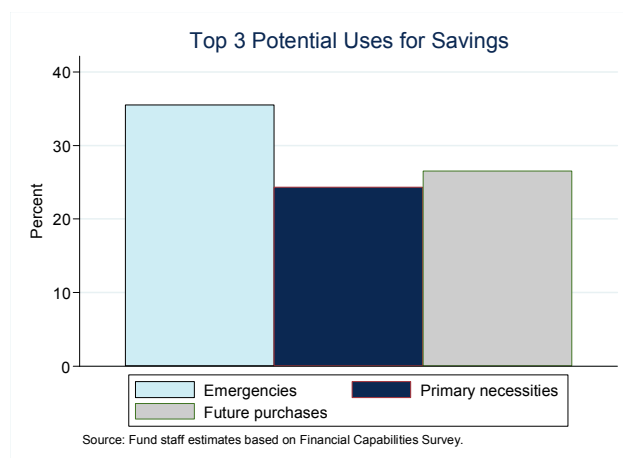
8. Informal finance is, however, not sufficiently studied in Colombia, possibly on account of information gaps in household surveys. In 2010, a new survey—*Encuesta de Carga Financiera y Educación de Hogares* (IEFIC)—was introduced by the statistical office (DANE) and the central bank to study financial products use and financial education in Bogotá. This survey is as a subset of the integrated households survey (*Gran Encuesta Integrada de Hogares*, GEIH) administered monthly at

³ See for instance O'Brien, S. (2014), and Bagnall et al. (2014).

the national level. The survey contains a wealth of information regarding financial behavior of respondents; however, it does not provide insights over the characteristics and behavior of the unbanked population and those who only use informal finance. Other sources of information on informal finance include the World Bank Findex indicator, and the one-off Financial Capabilities Survey also administered by the World Bank in 2012, and used in developing the National Strategy on Social and Economic Policy (CONPES) document outlining the strategy for financial education. The latter allows understanding financial attitudes, capabilities and financial education in both formal and informal finance universes albeit also with some limitations. Both surveys do not allow gauging the time dimension of the phenomenon, which may also be changing rapidly in light of governments' many actions to spread formal finance across the country and to the poor.

9. World Bank's Financial Capabilities Survey suggests that informal credit may be important for consumption smoothing and persistent over time. The evidence from the sample suggests that informal savings may be of short-term nature while informal borrowing, although potentially also short-term, may be determined by factors that are long-term in nature, such as earned income. In particular:

- 30 percent of respondents have some money left after they've met their basic needs and potentially constitute formal financial sector savers. The majority of these claims to save for emergencies, primary necessities, and future purchases suggesting that their savings might have a short horizon. We do not know from the survey, however, if they save formally or informally.
- 60 percent of respondents (at least occasionally) runs out of money to meet basic needs, the majority of which blames it on insufficient income. A vast share, about 56 percent of these "potential borrowers", obtains credit from family, friends, loan sharks, stores and co-workers and a considerable share—27 percent—obtains credit for their purchases at retail stores. These are expected to be people with more precarious jobs and lower and more volatile incomes. A third of respondents who "run out of money to meet basic needs" borrows formally.



10. Informal finance determinants include age, work status, income, education and financial knowledge. We first define the concept of informal finance user by combining answers to two different sets of questions to include individuals who responded directly to being users of informal finance and those who claim to rely on informal channels when they run out of money for

basic needs. The opposing universe includes individuals in the survey who use only formal finance—people who have a mortgage, some sort of loan from a formal financial institution, a credit or debit card, or microcredit—representing about 1/3 of the subsample. In this sample we use two different specifications of informal work based on the self assessment of respondents. In the first regression, “formal workers” include those employed in the formal sector and self-employed, informal workers are those employed in the informal sector, while “other workers” include students and house help. In the second specification self-employed are excluded from the “formal” work.

11. We find that the likelihood of using informal credit increases with age, and decreases at higher income levels, and is significantly lower for people with tertiary education degree (see Appendix, Tables 1 and 2). Moreover, for every incremental point in the financial education score the likelihood of using informal finance decreases by 5 percent. Formal workers are less likely to be users of informal finance compared to those employed in the informal sector and this finding holds for both specification of informal work.⁴ Interestingly, recipients of government transfers and pensions are also less likely to use informal finance. This can be ascribed to government efforts to extend transfers through banking channels as part of the various recent social initiatives and financial inclusion programs such as the *Banca de las Oportunidades* program.

12. Among people who claim to be running out of money for basic needs informal finance is determined by education and distance to financial institutions.⁵ In this more homogeneous sub-sample, we find that greater distance from a formal financial institution and lower education level both increase the probability of being a user of informal credit in the group of people who run out of money for basic needs while other variables, including individual characteristics, income and financial education scores, are not significant (See Appendix, Table 3).⁶ Because these are likely to be people with lower, more volatile incomes, and precarious jobs understanding the role of informal finance for consumption smoothing is important. Physical distance to formal finance providers may be playing a greater role for this group also because of constrained incomes.

13. An analysis of the IEFIC survey identifies broadly comparable informal finance determinants with limitations on the population studied. The IEFIC is administered to a pre-set cohort of inhabitants living in the capital who have answered in the GEIH that they use formal finance. In this survey, we have a richer set of information on financial products use, but being narrowly focused to Bogotá is a considerable shortcoming for studying the unbanked and the informal finance users who are likely to be more numerous in distant and rural areas of the country

⁴ This is in line with a study on financial knowledge and financial capabilities in Colombia, also based on the Financial Capabilities Survey, according to which informal sector workers are more frequent users than formal workers of informal credit and microcredit entities (Reddy et al., 2013).

⁵ The opposing universe includes only individuals who do not use informal finance within a group of people who run out of money for basic needs.

⁶ However, distance is significant only at 10 percent level and the coefficient is rather small.

where the physical presence of formal financial institutions is less prominent.⁷ We are looking at determinants of informal finance based on a similar set of variables used in the analysis above and constructed from the survey. The dependent variable in this case includes users of formal and informal finance while the opposing universe is confined to people who use only formal financial products (i.e. respondents who claim that they have at least one of the following formal financial products: credit card, mortgage, savings accounts, investment loans, student loans, stocks, fixed term deposits). Informal workers are employees and owners of companies with less than 5 workers, unpaid family members and housekeepers. We find that the probability of using informal finance decreases for higher income and education levels, and is lower for formal workers and recipients of pensions (see Appendix, Tables 4 and 5). However, a higher financial education score, constructed from questions designed to assess financial knowledge of respondents, is associated here with a higher probability of using informal finance in the sample.⁸ While counterintuitive, this finding is in itself interesting and suggests that informal finance may be offering funding solutions that, for a variety of possible reasons, closely meet some needs even of financially educated people who are not unbanked and warrants further consideration.

C. Latest Financial Inclusion Initiatives

14. The national financial inclusion strategy in Colombia builds upon four mutually supporting dimensions that aim to eradicate inefficiencies hindering financial inclusion. The objectives focus on:

- **Promoting competition.** The Colombian banking system is highly concentrated with five banks dominating the market in terms of assets and liabilities; the cost of access to financial services is high and most binding for the poor population (Karpowicz, 2014);
- **Developing products targeted to the unbanked.** A considerable share of the population remains unbanked, in part because current financial services do not match their needs. New simplified financial services accounts are being developed and the use of mobile banking is fostered in tandem with improved product design taking into account specific customer needs, while new points-of-sales terminals in commercial establishments are also opening;
- **Strengthening collateral.** Collateral requirements are high in Colombia possibly also reflecting low quality and enforceability; in the World Bank 2010 Enterprise Survey 44 percent of loans were subject to collateral requirements in Colombia while the average value of collateral amounted to 113 percent of the loan value; collateral requirements were found to be the most binding financial system constraint to deepening (Karpowicz, 2014); and

⁷ Although accounting for population density physical presence of formal financial institution may not be significantly smaller, income and infrastructure barriers make access to formal finance more difficult outside of the capital.

⁸ These results are significant at 1 percent level and robust across various specifications.

- **Fostering financial education.** Colombians are found to have strong budgeting skills in a set of countries that underwent a study on financial capabilities (Reddy, 2013), however, financial literacy scores were somewhat lower.

Promoting Competition through Licensing of SEDE

15. Following the steps of Brazil, Bolivia and Peru, in 2014, Colombia has allowed licensing of electronic money issuers (*Sociedad Especializada en Depósitos y Pagos Electrónicos—SEDPE*) aimed at promoting competition.⁹

While previously non-banks could not take deposits from the public, the SEDPE are authorized to raise deposits and offer electronic payment services but not to intermediate funds. Thus, although they may not be able to obtain credit, SEDPE's clients will be able to save, send and receive money, and make other payments but also to build a payments and savings history that can help them access credit in the future. Some new accounts will have a simplified opening and lighter "know-your-customer" requirements, while payments made from the accounts will be exempt from the (4×1,000) financial transaction tax. The deposit insurance guarantee fund (Fogafin) will cover deposits for up to Col\$20 million. Similar to other financial institutions, SEDPE will have to comply with anti- money laundering and terrorist financing provisions.

16. While regulation of SEDPE will be similar to that of commercial banks and supervision by the SFC is expected to be intrusive, other business advantages will attract mobile operators, money transfer companies, and others players.

The Financial Regulation Unit (FRU) at the Ministry of Finance is expected to clarify soon the regulatory issues related to banking correspondents, electronic deposit, interoperability, equity/deposit ratio and liquidity management to allow operators to develop sustainable solutions, taking into account their ability, and the needs of their clients. The forthcoming legislation will ensure that the SEDPE operate in accordance principles of security and soundness to safeguard funds and preserve financial stability. The main advantages for these institutions and the attractiveness to will be increased *transactionality* and geographical capillarity that will enable wider reach of services and lower costs with high potential for expansions in some areas—such as remittances currently provided by postal services—and across the lower-middle-income population. Licensing of SEDPE should thus engender more competition in the financial sector, which will directly affect some financial inclusion barriers, such as participation costs and intermediation efficiency.

⁹ The SEDPE can be established by individuals or legal entities, with a minimum capital requirement of COP\$3 million in 2014 (as opposed to COP\$35 million required for a traditional commercial banking license), and can receive capital investments from commercial banks and financial corporations (Financial Inclusion Law 1735 of 2014). These requirements are higher than elsewhere in the region.

Developing Products Targeted to the Unbanked—Mobile Banking, Microcredit and Microinsurance

17. Mobile banking is closely linked to electronic money issuers and is expected to spread out more forcefully with the recent licensing of SEDPE. Colombian regulatory provisions already encourage financial institutions to provide mobile banking services when meeting minimum security requirements. As mobile operators continue to penetrate the financial services market they will become both component suppliers of communication services to other financial institutions as well as their competitors at the financial services level. Mobile banking can foster the use of financial services for households through improved product design taking into account specific customer needs. Statistics show that the number of transactions using mobile banking has been growing significantly, by about 30 percent over 2014, on top of a more than two-fold increase during 2013.¹⁰

Table 1. Financial Inclusion Progress - Highlights

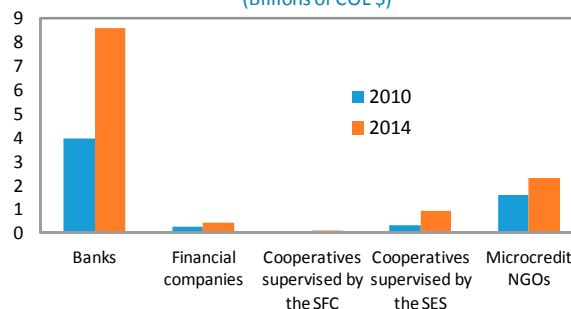
(Units, unless otherwise indicated)

	2012	2013	2014
Physical presence			
Banking correspondents	34,178	49,147	95,686
Branches	5,962	6,267	6,248
Transactions			
Banking correspondents	65,081,129	90,707,565	117,935,831
Branches	689,249,358	690,715,737	700,644,424
Mobile banking (until June 2014)	32,712,408	77,509,667	119,014,908
Use of products			
Share of adults with at least one financial product (percent)	67	71	73
Savings accounts	43,193,633	46,090,797	50,553,751
Electronic savings accounts	2,696,161	3,180,284	3,296,428
Simplified savings accounts (August 2014)	18,439	101,974	103,889
Electronic deposits (August 2014)	809,605	1,889,446	2,273,583
Microcredit disbursements (millions of COP)	2,944,048	3,450,971	3,940,028

Sources: Superintendencia Financiera, Banca de las Oportunidades, and Central de Información Financiera.

18. Microcredit disbursements have been growing at an average annual rate of 18 percent during the last three years, stimulated by the lifting of the microcredit interest rate cap from 34 percent to 50 percent. There are over 1.5 million microcredit debtors, representing a penetration of only 5 percent of the adult population. Microcredit now accounts for about 3 percent of the gross lending

Balance of Microcredit Portfolio
(Billions of COL \$)



Source: Banca de las Oportunidades.

¹⁰ Mobile phone penetration was 98 percent in 2011.

portfolio of formal banking institutions. The regulatory framework for microcredit is being strengthened to consolidate the achievements made in this area. To bring into the financial system the currently unbanked population the Decree 2654 of 2014 created a new type of uncollateralized consumer credit of low amount (up to two minimum wages) and up to 3 years of maturity, and established the bank rate for this modality.¹¹

19. A regulatory and supervision system is in the making this year to implement and promote microinsurance. Through the consultancy carried out under Access to Insurance Initiative (A2ii) the SFC has been making efforts at the policy level, through an agreement with the German Federal Government agency (GIZ) and *Banca de las Oportunidades*, to promote the supply of efficient and inclusive microinsurance products in line with high consumer protection standards. Progress was made in defining the roadmap for promoting inclusive insurance through a country diagnostic and setting specific objectives for the regulatory and supervisory framework. Meanwhile, a joint initiative with the FRU has led to the issuance of a Decree allowing bank correspondents to place insurance products in remote locations.

Strengthening Collateral—Implementing the Movable Property Registry

20. The movable property registry has the potential to directly increase access to credit by SMEs. Movable property (such as machinery, equipment or receivables) generally represents a higher share of assets of SMEs that are also more constrained financially. It was recently found that the likelihood of a firm obtaining credit increases when a movable property registry is introduced by 7–8 percentage points on average and even more so for smaller firms. Also, the cost of financing tends to decline and the maturity of loans increases (Love et al., 2013). Reforms to movable property laws that eliminated limits on what can serve as collateral in China (2007), Ghana (2010), Mexico (2011) and Vietnam (2007) also allowed creditors to seize and sell collateral privately or through summary proceedings and gave secured creditors first priority that they can verify through an electronic archive (Standard Chartered, 2015). Out of 47 SSA countries 22 have implemented new secured transactions legislation and registries.

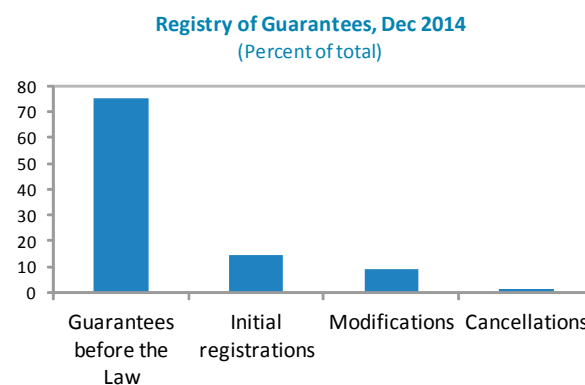
21. Colombia has adopted a new secured transactions law that establishes a functional secured transactions system and a centralized, notice-based collateral registry. The law has broadened the range of assets that can be used as collateral, and allows a general description of assets granted as collateral. It establishes clear priority rules inside bankruptcy for secured creditors, sets out grounds for relief in enforcement actions by secured creditors during reorganization procedures and allows out-of-court enforcement of collateral (World Bank, 2015). The framework also incorporates a scheme for an expeditious execution of guarantees which is one of its most important features. The use of movable property as collateral against credit is expected to improve the risk profile of the borrowers, thus lowering borrowing costs and extending loans maturities. The

¹¹ Resolution 2259 of 2014.

implementation of the movable property registry has also a strong potential for including individual consumers into formal finance and providing collateral for consumption credit.

22. One year into implementation, the movable property registry can claim over a million records for a total loan value of Col\$200 trillion. Newly registered claims on assets are only a quarter of total guarantees, however, given that the majority is constituted of existing claims that were “migrated” away from the local chambers of commerce to the centralized virtual registry following the introduction of the new Law. Less than 1 percent of new and old records, corresponding to a loan value of about 4 percent of total, represent guarantees to SMEs. The registry includes about 1,000 creditors, nearly half of which are registered domestic or foreign companies, mostly commercial entities, banks and other financing companies, followed by funds and leasing companies. The remaining users are individual domestic and foreign creditors. In terms on value, approximately Col\$85 trillion (40 percent of total registered claims) consists of motor vehicles while the remaining part consist of claims on a large variety of items such as households appliances, rice, fish cultures, voluntary savings and pensions, and others.

23. The movable property registry is expected to contribute to financial inclusion more substantially in the very near future. The introduction of the centralized registry has lowered transaction costs for accessing information on guarantees that was previously spread out across the 57 chambers of commerce.¹² The fixed cost of a record was also lowered considerable and amounts now to only 15 U.S. dollars, independent of the value of collateral. However, access by SMEs has only been marginal so far and individual borrowing has mostly been ascribed to consumer finance. The forthcoming regulation will shorten the execution period of guarantees from 1,500 to 90 days. This, together with SFC’s efforts to develop methodologies for facilitating collateral appraisal, could in turn increase banks’ acceptance of a wider range of assets as collateral for lending, greatly benefiting financial inclusion of new borrowers and those enterprises whose collateral value did not appeal to formal creditors until now.



Source: Confecamaras.

¹² In the past registration was subject to levies that in some cases could amount to several hundreds of thousands of U.S. dollars (for instance, in the case of expensive equipment used in the hydrocarbon sector).

Fostering Financial Education

24. A large number of institutions in the country are working to upgrade financial education through numerous initiatives. Financial education is one of the main pillars of the new financial inclusion national plan in Colombia, launched in 2014. The Intersectoral Committee on Financial Education acts as a forum for policy coordination on Financial Inclusion but the private sector is also engaged in providing assistance with banks offering more transparent information on products, services and their costs on-line.¹³ The SFC actively engages with the Intersectoral Committee and has developed a variety of instruments to promote learning: (i) an on-line course called "Provision of information and advice for the financial consumer" is widely promoted through the SENA; (ii) the *Superlandia* web portal is targeted to children and teenagers; (iii) the *Superfinanzas* game aims to promote financial education; and (iv) *Aprende Más* tests administered by Asobancaria will include a module on financial education and will contribute to improved measurement of financial capabilities. In addition, the SFC permanently posts on its website information relevant to consumers and offers updated tools to allow comparison between different financial products, such as the rates' simulator.¹⁴ The SFC is also developing a framework for monitoring financial education programs and information in supervised entities. SFC has participated in presentations open to the general public. The central bank also participates in these initiatives and some of the programs it supports include graduate courses on economics and contests for high school students on various essay topics. A massive campaign targeted at poor municipalities and carried out through local television, radio, and theater performances is also currently underway and it portrays responsible budgeting (borrowing and saving) and use of insurance products for management of risks. An impact evaluation of this campaign will take place by the end of this year.

25. On other fronts, the authorities are also developing guidance materials for financial education dedicated to the school system. The first stage will be piloted the material at primary education level in some municipalities and will later roll it out to the rest of the country and through secondary education. Financial planning tools allowing comparing a variety of fees and charges applied to financial products. Moreover, a consultancy carried out with the Andean Development Corporation is expected to establish a methodology for monitoring financial education and information programs implemented by institutions subject to supervision, and measure their impact.

26. The effect of these initiatives may have time to bear fruit but financial education has a vast potential for promoting formal finance. Like other instructional programs, financial

¹³ The Committee includes the following members or their delegates: the Minister of Finance; the Minister of Education; the Financial Superintendent; the Cooperative Sector Superintendent; the director of the National Planning Department; the director of the Deposit Insurance Fund of Financial Institutions; the director of the Deposit Insurance Fund of the Cooperative sector; and the director of Financial Regulation Unit of the Ministry of Finance.

¹⁴ This tool allows the customer to define an approximate value of the financial service according to use criteria, search historical price information, and to consult comparative tables for savings accounts and credit cards. The information is published quarterly.

education takes time to develop, and be assimilated into the society, while its effects may take a long time to reveal. However, financial education may crowd the unbanked into the formal financial sector more than any other strategy, in particular for those segments of the population who are currently making use of informal finance (as shown in our regressions). However, financial education will also enhance the knowledge of those already using formal products, and allow them to make sound financial choices, which will ultimately contribute to making the financial system even more stable than today.

D. Conclusion

27. The study of informal finance suggests that financial education and schooling are both important for fostering formal finance use. People with tertiary education and those with higher financial education scores are less likely to use informal financial channels. Thus, Colombia's financial education efforts, as one of the main area of focus in the financial inclusion strategy, must be praised; they not only allow increasing access to finance but also equip users with tools for making sound financial choices from which everyone will ultimately benefit. Labor formalization and income growth are also significant determinants of formal finance, while physical presence of financial institutions matters especially for the financial inclusion of those segments of the population who occasionally run out of money for basic needs. Yet, distance may have becomes less of an obstacle to those using finance for entrepreneurship given that Colombia has substantially increased the density of formal finance providers.

28. As the authorities move to implement their second generation financial inclusion policies, current households surveys should be expanded. To provide input into the financial inclusion policy design the IEFIC should be administered at the national level and become part of the global households survey—the GEIH. The survey should be also expanded to include questions directed at understanding the reasons behind financial choices and the obstacles to accessing formal finance. The information collected across the country would also help gauge better the overall households indebtedness of the unbanked population which tends to be poor. To allow assessing the effect of ongoing financial inclusion initiatives, it would be moreover important designing the surveys in a way to track individual households' behavior across time. This would also make possible evaluating informal finance's role in smoothing households consumption over time when affected by income shocks. The authorities are already acting upon the need to understand better the demand side of financial inclusion and, with the help of a market research association, *Banca de las Oportunidades* and the SFC are generating a new survey that will more directly explore the nature of informal finance in Colombia already by the end of this year.

29. Policies supporting improvement in the regulatory flexibility—such as, for instance, simplifying account opening—and policies to enhance consumer protection, are also contributing to lowering the formal financial sector participation cost in a more substantial way. As the implementation of the movable property registry gains ground, acceptance of a wider range of collateral by banks will facilitate access to finance by SMEs, supporting financial inclusion and growth.

Appendix 1. Regression Results

Financial Capabilities Survey Regression Results

Table 1. Informal Finance - Probit Results

Dependent variable: Informal finance client		
	(1)	(2)
	b/se	b/se
D_rural	0.142 -0.179	0.144 -0.177
D_female	-0.228 -0.17	-0.262 -0.166
Age	0.055 *	0.051*
	-0.029	-0.029
Age ²	-0.001 *	-0.001
	0.000	0.000
Primary	0.000 (.)	0.000 (.)
Secondary	-0.333 -0.208	-0.347 * -0.208
Tertiary	-0.787 *** -0.26	-0.748 *** -0.262
Log_income	-0.884 *** -0.12	-0.843 *** -0.122
Distance_formal	0.001 -0.002	0.002 -0.002
Fin_edu index	-0.215 ** -0.086	-0.205 ** -0.083
D_pensions/transfers	-0.954 *** -0.325	-0.91 *** -0.317
Informal wrk	0.000 (.)	
Formal wrk	-0.536 * -0.299	
Other wrk	0.033 -0.287	
Formal wrk2		-0.691 *** -0.199
Constant	12.436 *** -1.638	11.953 *** -1.638
Observations	530	530

Standard errors in parentheses

* p<0.1, ** p<0.05, *** p<0.01

Table 2. Informal Finance - Marginal Effects

Dependent variable: Informal finance client		
	(1)	(2)
	b/se	b/se
D_rural	0.031 -0.039	0.031 -0.038
D_female	-0.049 -0.037	-0.056 -0.036
Age	0.012*	0.011*
	-0.006	-0.006
Age ²	-0.000*	-0.000
	0.000	0.000
Primary	0 (.)	0 (.)
Secondary	-0.074 -0.046	-0.077 -0.045
Tertiary Education	-0.188 *** -0.066	-0.176 ** -0.066
Log_income	-0.191 *** -0.022	-0.181 ** -0.023
Distance_formal	0.000 -0.001	0.000 -0.001
Fin_edu index	-0.0466 ** -0.019	-0.0441 ** -0.018
D_pensions/transfers	-0.206 *** -0.068	-0.195 ** -0.066
Informal work	0.000 (.)	
Formal wrk	-0.128 * -0.07	
Other wrk	0.007 -0.063	
Formal wrk2		-0.148 *** -0.041
Observations	530	530

Standard errors in parentheses

* p<0.1, ** p<0.05, *** p<0.01

Source: Financial Capabilities Survey (The World Bank); and Fund staff estimates.

Table 3. Informal Finance

Dependent variable: Borrows informally when running short of money for basic needs

	Probit b/se	Margins b/se
D_rural	0.249	0.070
	-0.193	-0.054
D_female	-0.032	-0.009
	-0.170	-0.048
Age	-0.001	0.000
	-0.026	-0.007
Age ²	0.000	0.000
	0.000	0.000
Log_income	0.012	0.004
	-0.097	-0.027
Primary	0.000	0.000
	(.)	(.)
Secondary	-0.146	-0.039
	-0.191	-0.051
Tertiary education	-0.669 **	-0.213 **
	-0.260	-0.087
Distance to formal	0.003 *	0.001 *
	-0.002	-0.001
Infomal wrk	0.000	0.000
	(.)	(.)
Formal wrk	-0.059	-0.017
	-0.285	-0.081
Other wrk	-0.012	-0.003
	-0.242	-0.067
Constant	0.974	
	-1.353	
Observations	460	460

Standard errors in parentheses

* p<0.1, ** p<0.05, *** p<0.01

Source: Financial capabilities Survey (The World Bank); and Fund staff estimates.

IEFIC-GEIH Survey Regression Results

Table 4. Informal Finance (IEFIC) - Probit Results

Dependent variable: Users of formal and informal finance			
	(1)	(2)	(3)
	b/se	b/se	b/se
D_female	-0.069 -0.055	-0.062 -0.055	-0.064 -0.056
Age	0.042 ***	0.041 ***	0.041 ***
Age ²	-0.015 -0.001 ***	-0.015 -0.001 ***	-0.015 -0.001 ***
Log_income	0.000 -0.105 *** -0.029	0.000 -0.118 *** -0.029	0.000 -0.112 *** -0.029
Primary	0.000 (.)	0.000 (.)	0.000 (.)
Secondary	0.134 * -0.078	0.097 -0.078	0.107 -0.078
Tertiary	-0.093 -0.085	-0.160 * -0.086	-0.136 -0.086
D_pension	-0.216 *** -0.079	-0.225 *** -0.080	-0.223 *** -0.080
Formal wrk	-0.139 ** -0.062	-0.143 ** -0.062	-0.142 ** -0.062
Fin_edu index		0.054 *** -0.012	
Constant	-0.134 -0.494	-0.146 -0.494	-0.205 -0.506
Observations	3,875	3,864	3,864

Standard errors in parentheses

* p<0.1, ** p<0.05, *** p<0.01

Source: IEFIC Survey (DANE); and Fund staff estimates.

Table 5. Informal Finance (IEFIC) - Probit Results

Dependent variable: Users of formal and informal finance			
	(1)	(2)	(3)
	b/se	b/se	b/se
D_female	-0.015 -0.012	-0.014 -0.012	-0.014 -0.012
Age	0.009 ***	0.009 ***	0.009 ***
Age ²	-0.003 0.000 ***	-0.003 0.000 ***	-0.003 0.000 ***
Log_income	0.000 -0.023 *** -0.007	0.000 -0.026 *** -0.007	0.000 -0.025 *** -0.007
Primary	0.000 (.)	0.000 (.)	0.000 (.)
Secondary education	0.032 * -0.018	0.024 -0.019	0.026 -0.019
Tertiary education	-0.020 -0.018	-0.034 * -0.019	-0.029 -0.019
D_pension	-0.049 *** -0.018	-0.050 *** -0.018	-0.050 *** -0.018
Formal wrk	-0.031 ** -0.014	-0.032 ** -0.014	-0.032 ** -0.014
Fin_edu index		0.012 *** -0.003	
Observations	3,875	3,864	3,864

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2012 FSAP RECOMMENDATIONS: STATUS AND IMPLEMENTATION REPORT^{1,2}

The Colombian authorities are actively implementing key recommendations of the 2012 FSAP Update and are to be congratulated for taking full ownership of the reform process and for developing a high-level strategic plan to implement it. Welcome progress is being made to enhance legal powers of supervisors to ensure effective supervision of financial institutions and markets. Authorities are encouraged to ensure new legislation is passed without further delays. The move towards risk-based supervision will help to identify and track financial institutions' vulnerabilities on a forward-looking basis and provide clear expectations for financial institutions to strengthen the quantity and quality of their capital, liquidity and provisioning as well as their own risk-management. The enhanced legal provisions, when completed, and the move to risk-based supervision will also ensure that compliance with supervisory standards and prudential requirements are met on a continuous basis. It is recognized that implementing the recommendations will involve multiple processes and inevitably take time. The authorities have identified progress in the following key broad areas: institutional strengthening of the regulatory and supervisory framework; risk-based supervision; consolidated supervision; strengthening of prudential requirements; financial.³

A. Independence and Legal Protection of Supervisory Staff

1. Background. The 2012 FSAP found that while the *Superintendencia Financiera de Colombia* (SFC) had operational autonomy within a general framework established by the government, procedures for the appointment and dismissal of the Superintendent limited his independence and made him vulnerable to political pressure. Moreover, the law did not provide legal protection to the Superintendent and staff of the SFC against lawsuits for actions taken and/or omissions made while discharging their duties in good faith. It was recommended that the Superintendent be appointed for a fixed term or a public explanation be offered of the reasons for dismissal with high priority and within a short term. The legal framework was expected to limit circumstances in which private parties can sue with medium priority and within medium-term.

¹ Prepared by Mohamed Afzal Norat and Izabela Karpowicz. We are grateful for comments from Valerie Cerra and Robert Rennhack (both WHD), Fabiana Melo, Eija Holttinen, Diarmuid Murphy and Alvaro Piris Chavarri (all MCM), Ingrid Juliana Lagos Camargo and Jorge Castano Gutierrez (both SFC, Colombia).

² This report is a formal record of authorities' and staff views regarding the status of implementation of 2012 FSAP Update recommendations. Staff views on the implementation progress are not based on a formal assessment against standards or a comprehensive analysis of the evidence of progress. Rather they reflect the feasibility of investigation within the context of an Article IV consultation.

³ Progress with financial inclusion is documented in Chapter 6.

2. Actions. The authorities have sought to strengthen independence of the Superintendent and provide enhanced legal protection to SFC staff through a new draft law which was sent to Congress for approval. The Superintendent will be given greater autonomy by, among other things, being appointed for a fixed four-year term and a clear removal and replacement process will be set out for him or her. Moreover, a special legal protection system will be established for SFC staff to provide greater legal security in making decisions according to their duties and responsibilities, unless they are demonstrated to be acting in bad faith. In addition, budgetary funds will cover the cost of mounting a defense against lawsuits initiated as a result of acts of commission or omission by SFC civil servants in carrying out their duties.

3. Views. The increased transparency and clarification in the new draft Law in ensuring not only de facto but also de jure independence of the SFC and legal protection of its staff is welcome. In particular, the improvements to the appointment and accountability processes related to removal of the Superintendent of the SFC are useful in addressing the potential vulnerabilities that the post may be subject to in terms of political pressure. However, even with the law coming into force, future supervisory effectiveness of the SFC will need monitoring on an ongoing basis because legal provisions are not a sufficient condition for operational independence. Supervisory authorities will have to demonstrate their ability and willingness to act when needed, to translate legal provisions on independence and legal protection into effective supervision.

B. Macroprudential Policy: the Financial Security System

4. Background. Within a medium-term timeline and medium priority, the FSAP recommended strengthening the formal institutional arrangements for delivering financial stability by adopting a more formal structure of the financial system monitoring committee (CCSSF) role through an action plan to manage a systemic crisis while respecting the legal mandates of institutions (BR, SFC, MHCP and FOGAFIN) that make it up. The FSAP recommended that the CCSSF also be responsible for directing action plans related to systemic matters including resolution of D-SIBs, SIFIs including financial conglomerates and large non-bank financial institutions.

5. Actions. The authorities have sought to strengthen the work plan on prudential issues at both the macro and micro levels, including an assessment of systemic risks, by continuing to develop methodologies for monitoring SIFIs, at the individual level as well as across the board. The action plan includes continued strengthening of coordination procedures in times of crisis, including memorandums of understanding (MoU), and decision-making processes amongst institutions responsible for financial stability. Enhanced monitoring of the financial sector through an expanded Financial Stability Report (including stress tests) has already occurred and new analytical methodologies and indicators of systemic risk have been developed as part of the BR working paper series. Moreover, SFC is seeking to fully embed the move from compliance, rule-based supervision framework to a risk-based supervision utilizing technical capacity development from the Toronto Center based on the Office of the Superintendent of Financial Institutions (OSFI) risk-based supervisory approach. While progress on coordination has improved through formal MoUs, these may not be sufficient to ensure all confidential supervisory information is shared in all cases between institutions that make up the CCSSF and between home and host supervisors. Some

enhancements for managing cross-border impacts on systemic risks have been made through new supervisory colleges, off-shore on-site visits with home supervisors of subsidiaries, MoUs, and coordinated work with Central American supervisory bodies. A more formal structure for CCSSF will be adopted through the issuance of a Decree (1974 of 2014), identifying some of the Committee's activities: sharing information on risks that could affect financial stability; promoting the exchange of information, resolution and communication mechanisms among institutions making up the Committee so that they can be implemented at times of financial stress; and conducting studies on common interest topics.

6. Views. The CCSSF proposed enhancements will further help strengthen coordination and action in dealing with systemic risk. The CCSSF remains an institution through which authorities in charge of financial stability coordinate their work. While Colombia has a wide range of macroprudential tools to tackle incipient systemic risks, the challenge for the CCSSF remains in coordinating and communicating these policies with existing microprudential, macroprudential and macroeconomic policy tools to avoid conflicts and unintended impacts. Moreover neither the SFC nor the CCSSF have designated any bank as D-SIBs or as non-bank SIFIs, or identified common risks of non-systemic institutions which could become systemic. A D-SIB or D-SIFI designation would require enhanced supervision involving greater supervisory intensity and intrusiveness. Moreover, these entities would also be subject to the regulation by the macroprudential authority. This would require the calibrating and setting above minimum prudential (capital, liquidity, or leverage) requirements for systemic entities in line with best international practice. This may be made more explicit in the future when the processes of risk-based supervision and firm-specific prudential requirements by the SFC become fully embedded. The CCSSF could be provided with explicit decision making powers or, alternatively, with "semi-hard" powers to recommend actions, coupled with a 'comply or explain' mechanism. This would remove the need for the CCSSF to have direct control over policy instruments or over participating institutions. This arrangement would help preserve the operational autonomy of the participating agencies.

C. Holding Companies of Financial Conglomerates

7. Background. Within a medium term timeframe and high priority, the FSAP recommended that a law be approved that gives SFC supervisory and regulatory powers over the holding company of a financial conglomerate. The SFC's legal powers cover banks and their subsidiaries but do not cover associated holding companies that are not regulated. There are no powers to change a financial conglomerate's structure, and prudential requirements do not cover the entire banking group. Currently the assets of foreign subsidiaries of Colombian financial conglomerates account for about 18 percent of total assets of Colombian lending institutions, with 210 institutions having an international presence in over 20 countries, primarily in Central America.

8. Actions. A draft bill has been presented to Congress, jointly drafted by the MHCP and SFC. The bill will provide special rules for the supervision of financial conglomerates, providing the SFC necessary powers for a comprehensive monitoring and implementation of standards for conglomerates and financial holdings. The draft bill establishes: (i) the definition of financial holding conglomerates; (ii) the legal powers of the SFC regarding the establishment of prudential

requirements that apply to said conglomerates, including provisions on corporate governance, solvency requirements, credit limits, concentration risks and transactions within the cluster and with related parties, among others; and (iii) the legal authority to order changes in the structure of the conglomerate, and to limit the activities that can be performed by the institutions or vehicles that make up this cluster, including the establishment and operation of offices abroad. Currently the SFC obtains information related to foreign subsidiaries directly from entities and parents subject to supervision. It has conducted on-site inspections of foreign subsidiaries, participated in supervisory colleges for large Colombian conglomerates, and signed 26 MoUs with authorities where Colombian banking groups and conglomerates are active. It is also implementing a new risk management methodology covering solo and consolidated levels.

9. Views. The consolidated supervision, risk monitoring and assessment of financial conglomerates by the SFC have been greatly enhanced and will continue to be enhanced in the coming years as new challenges are addressed. It is critical that the draft law on conglomerates is passed to allow needed powers over financial holding companies. These powers may not be sufficient with regard to mixed conglomerates, many of whom do not have a financial holding company structure, or are based offshore, outside regulatory and supervisory reach. The SFC should have enough regulatory powers over the non-financial institutions that form part of a mixed conglomerate to mitigate regulatory arbitrage within the group. It would be important to impose capital, liquidity, and risk management requirements at group-wide and solo levels but this may not translate into having the same level of “enforcement” powers over the non-financial institutions as over the financial ones within a group. Enhanced monitoring of such intra-group flows between regulated and unregulated entities should be undertaken involving the SFC and the *Superintendencia de Sociedades* (SS).

D. International Financial Reporting Standards (IFRS)

10. Background. Within a medium term and with medium priority, the FSAP has identified that Colombia had initiated a process of convergence toward IFRS and auditing standards and that it should continue its implementation of IFRS. It is expected that that most of the SFC’s supervised institutions, among other companies, will issue IFRS financial statements starting in 2015.

11. Actions. The SFC has conducted an impact evaluation of IFRS adoption on the financial institutions’ capital level and found that these adjustments could potentially distress equity of insurance companies, the level of coverage provisions of the loan portfolio of credit institutions, and the amount of capital held by cooperatives. The Decree 2973 of 2013 compelled insurance companies to keep catastrophic reserves for earthquake and workers compensations insurance. Even though these loss deviations and technical provisions are not allowed by IFRS4 (in as much as they are expected to be included in the capital), they were kept as a prudential measure. Another exception to IFRS4 was to allow 20 years for the transition to IFRS for life insurers to update the value of their annuities reserves due to the adjustment of the mortality tables in 2010. Another important area of IFRS impact relate to recognition of impairments for financial instruments. Under IFRS, using an incurred loss approach, too few losses would be recognized and too late. Exempting the application of IFRS for the portfolio of loans (loan portfolio) of credit institutions will ensure that

the recognition of impairments continue to be calculated using the more conservative Colombian regulatory method of expected loss, that also embeds a countercyclical component. The application of the new version of this standard issued by the IASB in 2014 already allows the recognition of the impairment loss using the expected loss method. Also the application of IFRS9 relating to the portfolio of investments was exempted because the rule applicable in Colombia does not support the category of Investments Available for Sale as the rule of SFC does resembling more to the new standard for financial instruments, issued in 2014. Finally in the case of financial cooperatives, since 2013 it was possible that these entities included in their statutes the provision that all the capital required to operate as an supervised entity by the SFC will be understood as "Irreducible Minimum Capital", which ensures that they can continue to register the amount of the contributions of its members as capital, in compliance for what is provided in IAS 32 and its interpretation.

12. Views. The move to IFRS and work undertaken by the SFC to enable supervised institutions to move to IFRS accounting is welcome. IFRS will enable a significant enhancement of accounting standards that would enable a more accurate representation of financial and nonfinancial institutions accounts and bring them into line with robust international accounting standards. The SFC has rigorously applied the convergence process for moving to IFRS throughout 2014 and has facilitated considerable progress in terms of adoption. Staff believe the SFC's plan to review implementation of IFRS relative to the previous standards in 2015 will provide further opportunities to address any outstanding issues.

E. Standards for External Auditors

13. Background. Within the medium term and with medium priority, the FSAP found that external audit norms were general and did not cover all the aspects of the international audit standards. While the SFC has the authority to oversee external auditors, it needed to adopt more rigorous standards for independence. For example, an auditor was able to receive as much as 25 percent of its revenues from non-audit services from a firm it audits, without being disqualified. Moreover, disqualifications appeared to only apply to the term of the specific engagement.

14. Actions. There has been some progress with regard to greater transparency and disclosures. Decree 302 of 2015 will ensure external auditors abide by the following international standards by January 2016: (i) International standards on auditing; (ii) international standards on quality control; and (iii) code of ethics for professional public accounting. Implementation will follow from implementation of IFRS. Any delay in implementing IFRS will have adverse implications for implementation of needed external audit requirements to bring them in line with international audit standards. The supervisory process takes into account the reports of the Auditors and the deviations revealed by them, but the SFC has its own risk monitoring procedures that are applied in accordance with the scheme planned under the Integrated Supervisory Framework (MIS).

15. Views. Enhancements to external audit standards are welcome and will improve transparency and disclosure around financial institutions' financial statements ensuring they remain robust in accurately defining its performance. Given that these enhancements are bound up together with the move to IFRS, delays could arise if IFRS implementation takes a longer period of

time than initially expected. Moreover, the SFC should ensure, as it moves to its risk-based supervisory framework, that such enhancements to standards and disclosures by external auditors and audits are fully incorporated but do not reduce its own intrusive assessment and monitoring of financial institutions. The External Audits of Banks issued by the BCBS in March 2014 sets guidelines on audit committee's responsibilities in overseeing the external audit function as well as prudential supervisor's relationship with external auditors this could provide further international best practices for authorities to employ.

F. Basel II Pillar 2 Supervisory Framework

16. Background. Within a medium term and with high priority, the FSAP recommended the adoption of the Basel II, Pillar 2 supervisory framework to enable Colombia to move from a rules-based to a risk-based supervisory framework (RBS). The FSAP found that the SFC did have a sound framework for the supervision of individual risks but that a comprehensive RBS framework was still in development. This RBS framework would look not only at individual financial institution risks, but also at risks across the financial system including domestic and foreign. The RBS framework would enable the SFC to efficiently allocate its resources to key areas of financial institutions' significant activities and risks (nature, size and complexity) and be more proactive and forward-looking with regard to identification of such risks. The FSAP identified that the SFC had since 2009 started to implement an RBS approach called the Integrated Supervision Framework (MIS), with the help from the Toronto Center, and modeled on Office of the Superintendent of Financial Institutions (OSFI's) RBS methodology. As of 2014, the RBS methodology has been fully developed for lending institutions and insurance companies.

17. Actions. The SFC has been implementing an RBS framework for several years. Work is most advanced for banks and insurers, and is now in the implementation stage. RBS development for broker dealers, trust companies, and pension funds began in 2014. Comprehensive risk management and assessment of risk led to the creation of an analysis unit together with relationship managers for groups of institutions, enabling a detailed and ongoing update of institutions and conglomerates risk profile. The MIS enables the assessment of the soundness of capital, liquidity and the robustness of capital and liquidity management policies and methodologies, taking into account the international standards on ICAAP, risk identification, and risk measurement.

18. Views. Staff welcomes the move to the MIS by the SFC which is an RBS supervisory framework that will continue to evolve and develop over time. The MIS will help the SFC obtain a more comprehensive and forward-looking assessment of financial institutions' significant activities and key risks, risk controls and the overall risk profile for each financial institution. The MIS, together with forward-looking stress tests and supervisory judgment, should also help the SFC determine the supervisory intensity and prudential requirements (Pillar 2 buffers) reflecting the size, complexity, and risk profile of each financial institution. The close working relationship and proactive involvement of the Toronto Center in helping the SFC to move to a RBS framework has been very beneficial. Feedback to supervised entities, even if from initial visits only, should be provided in a timely fashion to help institutions develop risk management processes, internal controls and governance frameworks to meet supervisory expectations. Work is still progressing in developing an

RBS framework for broker-dealers, trust companies, and pension funds. Given that there are domestically systemic entities in this non-bank group, the RBS framework progress should be prioritized for these financial institutions. The development, implementation and use of a RBS framework by the SFC will take several years to be fully embedded. This will also require resources devoted to the development of policies and procedures aimed at producing comprehensive and consistent off-site reports, and conducting robust on-site examinations and effective enforcement actions. Ultimately, whether the move to an RBS framework can deliver safety and soundness of financial institutions and overall financial stability will depend on the SFC willingness to act on risk concerns.

G. Comprehensive Risk Management for Banks and Banking Groups

19. Background. Within the medium term and with a high priority, the FSAP found that a comprehensive risk management was not fully developed. The SFC had issued regulations relating to the standards for risk management of financial institutions (referred to as SARs for its initials in Spanish) on credit, market, liquidity, operational and anti-money laundering risks. The SFC had specialized risk units that had responsibility for the overall supervisory process of each of these risks, including autonomous powers to issue administrative orders and sanctions. However, the scope of application of the SARs were directed towards individual institutions and individual risks. While the SFC had a general requirement that supervised entities manage their risks in a comprehensive way, there were no further specifications with regards to the comprehensive risk management of banks and banking groups. Of particular concern was the absence of standards for the management of interest rate in the banking book, as well as country and transfer risks. These latter risks were originally considered low priority, but have become significant with the increase of variable interest loans in the banking book and the large scale expansion of Colombian banking groups abroad.

20. Actions. The SFC has strengthened the risk management framework of financial institutions (SARF in Spanish) that is in line with RBS. It has integrated individual risks into a comprehensive management of all risks. This has ensured the policies, principles, responsibilities, functions of management, oversight of entities, and instructions are applicable across the board to all risks. The SFC has established methodologies and/or procedures for assessing specific risks of financial intuitions, defining minimum elements for establishing identification, measurement, monitoring, and oversight by each financial institution. These actions were completed in 2014. Financial institutions are also expected to measure each risk linking methodologies (standard and internal model) to accounting aspects to fully identify risks. Work on linking risks to accounting aspects still remains in progress and is expected to be completed in 2015. The SFC has also required that financial groups put in place instructions for risk assessment across the group. This remains in progress and completion is expected in 2015. The SFC and BR are also undertaking a project with the World Bank/IMF as part of the FIRST initiative to equip the BR and SFC with tools and methodologies to monitor and supervise systemic and liquidity risks faced by financial conglomerates. The project would identify needed regulatory changes to existing regulation or new regulations. Liquidity risk for individual entities (including arising from foreign currency) is identified to determine consolidated liquidity risk of financial conglomerate. The work will also determine consolidated country and

transfer risk, and interest rate risk on the banking book for financial conglomerates. Consolidated capital requirements for financial conglomerates will incorporate systemic risks. Systemic risk monitoring of financial conglomerates will identify systemic, foreign, and liquidity risks and prescribe measures to be taken by BR and SFC in this regard.

21. Views. Strengthening of the comprehensive risk capture and management of multiple risks for banking groups and financial conglomerates, both domestically and those expanding abroad, has been beyond expectations. The SFC has gone further in integrating the financial risk management of banking groups with the development and implementation of MIS. This will help the SFC obtain a thorough understanding of the risk profile of banks and banking groups at a solo and consolidated level. The creation of analysis units and relationship managers for institutions will help avoid any potential fragmentation of responsibilities among the various SFC supervisory departments in the implementation of an overarching risk management framework for banks. The development of key risk methodologies for financial conglomerates is still work in progress, and it will be important to implement it in a timely manner. Consolidated capital requirements for financial conglomerates addressing systemic, liquidity, and country risks would benefit from a clearly defined capital framework by the MHCP for domestic banks, banking groups, and financial conglomerates. The capital framework could articulate a clear transition plan to the Basel III capital adequacy measure and adoption of risk-based capital buffers to build additional loss absorbency for cross-border and domestic risks generated by financial conglomerate operations. Work on a comprehensive risk management framework for mixed conglomerates is not articulated. This is an area where functions, structure and operations of individual financial and non-financial entities of mixed conglomerate and intra-group flows between them generate risks that are not well understood. Joint work with the SFC and SS to understand family ownership and group structures, offshore registration—including of exposures of mixed conglomerates—will need to be identified and better understood to monitor risks and apply necessary prudential requirements over regulated entities of the mixed conglomerates.

H. Guidelines to Undertake ICAAP at Bank and Conglomerate Level

22. Background. In addition to the work undertaken by the SFC to move to RBS in line with Pillar 2, Basel II, the SFC was expected to ensure that banks have their own internal capital adequacy assessment processes (ICAAP) to complement Pillar 1, which are essentially minimum regulatory capital requirements covering credit, market and operational risk. This action was deemed of high priority, to be met within the medium term to Pillar 2 capital requirements would be in addition to Pillar 1 capital, and would reflect bank risk profiles and forward looking risks. Pillar 2 would also cover capital for addressing specific risks such as systemic, concentration, pension, and liquidity risk. The FSAP recommended that the SFC assess whether banks would be able to determine their overall capital adequacy by accounting for: capital held against the size and nature of their business, loan concentrations and risk exposures, strength of internal controls and accounting systems, and risk management systems and policies.

23. Actions. A decree will be released in the first part of 2015 that requires each credit institution to perform an internal capital adequacy assessment and identify the requisite level of

capital adequate to support its risk exposure. The SFC will determine the sufficiency of this process using the MIS and may require credit institutions to strengthen internal risk management controls, hold additional levels of capital and liquidity, adjust their ICAAP, and may establish penalties if they fail to comply with new capital adequacy requirements. ICAAPs will be required on a solo or consolidated basis, and will incorporate stress testing to determine institution's risk exposure and capital needs under adverse conditions. Regulations which contain the minimum elements required for the ICAAP will be completed in 2016. Credit institutions will be expected to identify and measure all key risks they are exposed, to including Pillar I and other risks. Credit Institutions will require an assessment of credit, operational, liquidity, reputational, strategic, off-balance sheet, and concentration risks. A stress testing framework draft has already been released and will be integrated into the ICAAP.

24. Views. It is welcome that the SFC is moving to implement ICAAP for banks on a solo and consolidated basis. However, ICAAP regulations and SFC capacity to assess banks' ICAAPs is not yet complete. Completing this work should be prioritized in line with the SFC move to Pillar 2. Moreover, capital will be determined using quantitative and qualitative criteria and judgment-based approaches, especially for hard to quantify risks. It will be important for the SFC to ensure that the ICAAP has strong board and senior bank management involvement and oversight. Moreover that bank' ICAAPs are able to determine capital adequacy on a forward-looking basis (including linked to own stress tests) which build sufficient adversity over prolonged periods and can vary with changes in bank's strategic plans linked to capital planning and with the business cycle.

I. Large Exposure Limits, Number of Exceptions and Limits for Related Parties

25. Background. The FSAP recommended, over the medium term and with high priority, to increase scope and streamline the complex set of large exposure limits to help manage concentration risk. Moreover, related party lending limits needed to be strengthened to further control connected lending. More importantly, local affiliates were not consolidated and available unused credit lines were not taken into account in calculating large exposure limits or related party lending. In addition, for large exposures, a statement under oath of non-relation could exempt certain parties from the definition of connected parties. The SFC was also recommended to require that exposures to directors, senior management and key staff, their direct and related interests, and their close family in affiliated companies also comply with the limits on related party lending. The SFC was also recommended requiring banks to have policies in place for avoiding internal conflict and disallowing parties involved in the process for granting and managing exposure to benefit directly or indirectly from it.

26. Actions. The MHCP proposal on large exposures is being reviewed and the SFC is providing comments which builds on the BCBS methodology of large exposures. Authorities have suggested that the draft provides greater clarity to exposure limits, clearer instructions, and broadens the scope of the application of large exposures framework at a consolidated level (including local affiliates) and widens definitions of counterparties and connected group of counterparties. The draft will allow the SFC greater discretion in their application on a case-by-case basis. Staff would encourage

authorities to make clear the details and actual limits and remaining exceptions to the large exposures regime. It is important that the large exposure proposal is issued without delay by end-2015 for public comments. As part of the current regime institutions are also expected to report any exposures equal or above to 10 percent of an entities eligible capital. Exceptions to the large exposures framework relate to exposures of sovereign and public institutions that help Colombia's economic development including infrastructure projects for the fourth generation of highway projects and the development bank (Financiera de Desarrollo Nacional).

27. Views. The SFC's plan to modify individual exposure limits and reduce the number of exceptions is welcome. Since the FSAP for Colombia was undertaken the BCBS has issued a new standard for large exposures. The authorities should revise their drafts to align them with the new international standard. The new proposals need to ensure that approved credit lines are taken into account when calculating compliance with limits and ensure that for the purpose of limits and reports commitments are also taken into account. While it is encouraging that the SFC is working towards this key FSAP recommendation, implementation is not complete and progress momentum will need to be maintained. While authorities have allowed banks to exceed exposure limits (articulated by the BCBS) for the infrastructure projects, the SFC needs to ensure banks are able to cope with concentration, and maturity mismatch risks on their balance sheets due to the relaxation of regulatory rules. The banks intend to transfer credit, liquidity and concentration risks from the projects to the wider Colombian financial system through securitization. The SFC should be alert to growing concentration and interconnectedness risks in other parts of the financial system (insurers and pension funds) from such securitization and growth of the shadow banking system. They should also remain alert to hedging risks of such projects migrating to broader capital and derivatives markets in Colombia. The SFC should also make clear how it would seek to address sovereign exposures (domestic and foreign) and sovereign-banking adverse loops outside of the large exposures framework. One way to deal with them would be to consider them under the general concentration risk (Pillar 2) framework.

J. Notification of Public Meetings and Extraordinary Actions

28. Background. The FSAP found that, while the standards for issuance of securities and related disclosure were high, and substantial progress was made on corporate governance, some issues still required attention. For example, the SFC had made great strides to improve corporate governance by adopting a voluntary code, issuing a yearly report on compliance and related explanations by all affected companies, and requiring company compliance reports to be public information. However, there were still substantial gaps in the protection accorded to minority shareholders and their capacity to influence the decisions of financial entities within conglomerates. The FSAP found that the law applicable to corporate conduct was largely commercial/company law and that the protection of minority shareholders in the concentrated institutions in Colombia was more limited than desirable. Moreover, the time frames for notice of extraordinary actions and the annual general meeting (AGM) were extremely short, even though IOSCO standards did not provide specific guidance in this regard. The complexity of Colombian companies makes these deficiencies especially problematic, as there are assertions that the available protections have been circumvented by

various strategies in practice. The FSAP recommended that in the medium term and with medium priority the rights of minority shareholders be improved. In particular, it was deemed necessary to increase the prior notice of public meetings and extraordinary actions, and improve overall compliance with the *Código Pais* (Country Code). There was also a need to strengthen the capacity to assure protection against takeovers and to detect improper related party transactions within complex conglomerates.

29. Actions. Representation of minority shareholders was allowed by Colombian law through the mechanism of the electoral quotient, which gives minority shareholders the right to be represented within the Board of Directors. In addition, in 2012, the SFC issued special dispositions in order to ensure the exercise of rights of foreign investors, shareholders of issuers listed on the national register (RNVE), by regulating the proxy voting mechanism. Concerning disclosure requirements for offerings or listings of equity and debt securities by foreign issuers, Colombian regulation states that both foreign and domestic issuers must comply with the same standards if they want to do a public offering of securities. In relation to the disclosure of information of directors, officers and employees, general information such as name, job position, and date of designation has to be revealed to the public through the RNVE. Since 2012, further enhancements have been put in place to strengthen protection of minority shareholder interests. The draft law on conglomerates provides SFC with new tools to ensure operations performed by financial conglomerates protect rights of investors from takeovers. Also the *Código Pais* ensures transparency and veracity of information provided to investors, recognition of rights of shareholders (significant or minority) and provides recommendations for managing conflicts between conglomerates and companies. There will also be a report on the implementation of the new National Code by issuers of securities. Issuers of securities are expected to evaluate legal changes to the Code of Good Governance, Code of Conduct, etc., so that new measures or recommendations can be incorporated within the National Code. Preparation began in 2015 and is expected to be completed in January 2016.

30. Views. Staff agrees that it is important that required shareholder protections be applied in practice, which would provide confidence to industry and regulators. The previous time frames for the annual general and extraordinary meetings were not sufficient but have now been extended by the SFC to address this deficiency. The draft law on financial conglomerates has yet to be passed and it is therefore unclear whether the *Código Pais* has obtained sufficient market adoption to ensure protection of minority shareholders and provide early notification of meetings. The danger remains that some entities could still circumvent the spirit of the mandatory take-over rules by aggressive structuring and other tactics. Some shareholders (and/or companies) could act in concert (at the expense of other minority shareholders). It is not clear whether the SFC has robust strategies or methodologies in place to test for misconduct in such circumstances. Furthermore, the work undertaken by the OECD on corporate governance suggests that more could be done with regard to disclosures of shareholders rights and reporting related to changes of ownership, independent of the size of that change in ownership. It would be useful for the SFC to ensure practices by entities meet such best practice principles.

K. Oversight of Broker-Dealers and Collective Investment Schemes

31. Background. The FSAP found that the Securities Law, adopted in 2005 together with subsequent amendments, had enhanced customer protection and the ability to combat market abuse. Since that period, the SFC has made substantial efforts to bring Colombia into compliance with international standards, in particular the standard for exchange of enforcement and surveillance information set by IOSCO, by signing the MoU in May 2012. It has also worked actively within the Colombian system to meet the new expectations contained in the IOSCO principles adopted in June 2010, relating various matters, including systemic risk and hedge funds. In this regard, the SFC has extraordinary administrative powers in the securities sector that exceed those of many jurisdictions, including the ability to freeze and seize assets (including assets of non-supervised entities and parties) and to intervene in the event of market disruption and defaults. Notwithstanding the significant progress, made with respect to consumer protection and market abuse, the FSAP suggested further improvements be made in relation to oversight of operators of collective investment vehicles and market intermediaries, including broker-dealers, to strengthen investor protection and improve the management of counterparty risks, including collateral management. This was to be carried out with a medium priority over the medium term.

32. Actions. Authorities have taken steps in 2014 to strengthen and standardize guidelines for collective investment funds administration, management, and distribution through issuance of multiple circulars and regulations that: (i) enhanced disclosures for investors; (ii) adopted a new authorization regime with additional requirements; and (iii) imposed new rules for agents in devising portfolios in line with international best practice. Market transparency and safeguards for investors have been improved by: (i) ensuring securities and cash are kept with independent safe-keeping services; (ii) making mandatory safe-keeping for collective investment funds but voluntary for third-part portfolios; and (iii) establishing authorization, risk management and custodial safe-keeping rules for entities providing safe-keeping services. Authorities have also tightened operating standards for e-trading systems for routing orders by adopting IOSCO standards and developing regulations and manuals. Risk management is also in place for broker-dealers in advising clients. To strengthen mechanisms for addressing counterparty risk for broker-dealers, and prevent the possibility of noncompliance by counterparties, especially those involved in their customers' transactions, the authorities have: (i) made counterparty risk management system (SARIC) mandatory for own and third parties' accounts; (ii) required broker-dealer systems to evaluate counterparties' risk profile; and (iii) required broker-dealers to establish preventive and corrective measures to oversee risk, beyond those established by trading systems (ceilings, limits, additional guarantees, and mechanisms for executing guarantees, closing of positions).

33. Views. The substantial progress in updating standards and providing consumer and investor protection is welcome as well as efforts to strengthen oversight of broker-dealers. However, consumer protection should not divert resources from the safety and soundness mandate of the supervisors. Regulatory developments for collective investment funds, e-trading, safe-keeping custodial services and broker-dealer risk management have been brought into line with international (IOSCO) standards. The SFC should clearly articulate the activities, definition and

growth of third-party portfolios and their interrelationships with collective investment funds to monitor investor and consumer protection. If investor protection is compromised due to these third party portfolios, the SFC should extend mandatory safe-keeping for such portfolios and funds. RBS using risk-matrices for brokers-dealers is expected to be implemented in December 2015. For e-trading, RBS involves monitoring, risk identification and assessment of risk management including operational, strategic and conduct risk. RBS for counterparty risk will focus on evaluations of policies implemented by broker-dealers such as monitoring, development, operations, commission agreements and property accounts. With regard to collective investment funds, the RBS approach will seek to determine significant activities, management capacities and risks of such funds, and targeting supervision intensity in relation to such activities and risks. The SFC will need to further clarify whether the RBS or adoption of new risk management standards for funds and broker-dealers also fully address portfolio management.

L. Bank Corrective Action and Resolution Framework: Legal Framework to Expedite Resolution and Internationally Accepted Principles

34. Background. The FSAP found that SFC had a broad range of corrective action powers that have been used effectively in the past. These measures included moral suasion and issuance of administrative orders, cease-and-desist orders, and sanctions. The SFC also had powers to take specific steps such as establishing an enhanced surveillance, under which the institution would follow the SFC requirements for its operation; coordinating actions with the deposit insurer; fostering the fiduciary administration of the assets and business by another authorized institution; ordering the recapitalization of the institution; fostering the partial or total transfer of the assets, liabilities or contracts, or the sale of its commercial establishments to another institution; ordering the merger of the institution; and ordering the adoption of a recovery plan. The FSAP found FOGAFIN to have a comprehensive set of resolution powers and suggested improvements in two key areas:

- Excessively long period of possession. Once a financial institution had been intervened, FOGAFIN had a period of two months (which can be extended) to decide on the resolution option. Such a long administration period added to the risks of shareholder lawsuits and a further loss of confidence in the institution, and the FSAP recommended that it be shortened.
- Too much flexibility in the choice of options. The FSAP found that given authorities could choose among a wide range of resolution options, this latitude could create pressures to select an option that unduly favors some shareholders or certain creditors. To avoid such bias, the authorities at the time of the FSAP were preparing a protocol to organize the resolution options using a decision tree that would separate systemic from non-systemic cases and identify the resolution options applicable in each case. The FSAP recommended that the protocol incorporate essential resolution principles (selection of the least cost option, minimize contagion risks, first losses to shareholders, transparency and fairness, prefer private solutions and quick response) and be public. The FSAP also recommended embedding the protocol in the legal framework to limit risks to the resolution process. The FSAP recommended that the corrective and resolution actions be completed with a medium priority over the medium term.

35. Actions. Authorities are adjusting the legal framework and establishing protocols to expedite resolution and ensure alignment with internationally accepted best practice resolution principles such as the FSB’s “Key Attributes of Effective Resolution Regimes”. Authorities have continued to develop the resolution protocol since the FSAP was carried out. It lays out clearly the importance of key principles—such as the systemic or non-systemic nature of the crisis the coordinating role of the CCSSF (and MoUs between its individual entities e.g. between the SFC and FOGAFIN) and various applications of resolution measures.

36. Views. Staff welcomes the enhancement and continued development of the resolution protocol, especially the desire by the authorities to reduce the risk of legal challenges by its codification into the legal framework. However as the protocols is not yet a law, the resolution powers, tools and resolution planning are not yet adequate. Moreover the authorities should clarify what set of principles would be applied in the event of a resolution, for example, whether the principles would be applied on least cost or a first loss allocation basis. Authorities have yet to make clear FOGAFIN’s administration periods, namely the time taken to make resolution decisions). Timings around resolution decisions will require FOGAFIN to account for variables such as the financial institutions conditions, the market situation and costs and effects of possible measures. Effective resolution and resolution planning requires up-to-date information sharing including confidential supervisory information amongst domestic, foreign institutions and authorities responsible for planning or carrying out resolution. It is not clear whether the draft law will allow domestic authorities to share all confidential information for resolution purposes with foreign authorities or whether there are limits to such information sharing. It is also not clear if Colombian authorities would have the authority to exercise their resolution powers over local operations of foreign institutions to support a foreign resolution action. Or, alternatively whether Colombian authorities would receive support from host authorities in their resolution efforts for Colombian conglomerates that have subsidiaries in foreign jurisdictions. However it must be stated that progress on cross-border recognition of resolution action remains limited worldwide and is not unique to Colombia. Without such a framework for domestic and cross-border information sharing and cooperation, the effective implementation of group-wide and cross-border resolution strategies (for systemic banks and nonbanks) could be compromised. Moreover the effective implementation of group-wide resolution strategies requires authorities to have appropriate powers to intervene at the level of financial holding companies and ensure continuation of services by non-regulated operational entities that are significant to the systemic functions carried out within the group. As articulated earlier (on FSAP recommendations related to financial holding companies), the draft law grants SFC powers to supervise financial holding companies but it is not clear whether these powers would be sufficient or broad enough in the context of resolution of mixed as well as financial conglomerates.

M. Financial Transaction Tax

37. Background. The FSAP recommended that any actions that limited the development of interbank money markets be removed to ensure smooth liquidity provision for the financial system for intermediation purposes and to facilitate implementation of monetary policy. A financial

transaction tax could potentially limit financial transaction, such as repo trading, which could impact interbank general collateral (GC) repo markets that corporate could make use of to expand the range of funding availability. The FSAP recommended that this be carried out with a medium priority over the medium term.

38. Action. The 2014 tax reform approved by Congress postponed the phasing out of the financial transaction tax to 2019. The wealth tax rate was maintained at the previous level and will be phased out by 2018 gradually from 1.15 percent in 2015 to 1 percent in 2016 before falling to 0.4 percent in 2017.

39. Views. It is unclear how large a role the transaction tax has played in the development of money markets relative to other collateral and counterparty issues (see below). This tax remains a barrier to further development of money markets in Colombia and adds to wider financial disintermediation.

N. Issuance of Short-Term Government Securities

40. Background. The FSAP recommended with a medium priority and over the medium term increasing the range of eligible assets acceptable for development of more efficient and robust open market operations and repo markets. As noted above, the only assets which are eligible for use in routine open-market operations are longer-term government securities and (in principle) debt securities issued by the BR. Expanding issuance of short-term government securities would allow a better balance of long-term and short-term securities for increased flexibility in public debt management. Access to a wider range of collateral, especially short-term government securities, could also create a short-term pricing benchmark for issuance of commercial short-term securities (such as commercial bills, certificates of deposits, and commercial paper issued by financial and non-financial corporates) increasing the range of funding for these institutions and further facilitating financial intermediation and development of securities markets. Moreover, the development of such markets could in turn create a wider range of eligible collateral, reducing the eventual reliance on government securities in central bank operations and reducing the incentives for commercial entities to only hold government securities thereby increasing their exposure to sovereign risks.

41. Action. The authorities have taken steps to issue short-term securities in the 6-month, and 1–2 year ranges (called TES CM) used for liquidity absorption purposes and have differentiated them from the TES B longer-term securities (5-years and above) used for Budget financing. Shorter term TES B (less than 5-years maturity) issuances were also dropped to ensure TES CM and TES B shorter term bonds avoid competing for liquidity. Existing TES CM and outstanding TES B shorter-term bonds have helped develop the local yield curve and offer good benchmarks for agents willing to issue debt with similar maturities. The securities can be used by the market and the BR for repo and OMO purposes.

42. Views. The expanded issuance of short-term government securities to be used for liquidity absorption is welcome. Staff were unable to verify the increasing use of these short-term

government securities as adding to the stability to the short-end of the local yield curve. However, market participants suggest that liquidity in money markets remains concentrated at the overnight market and money markets at longer maturities could be helped by increased issuance of TES CM. This feature may reflect a residue of counterparty credit risk that remains since the collapse of systemic broker-dealer, Interbolsa in 2012. If TES CM are issued regularly with a clear strategic objective underlying their issuance then over the medium-term these securities have the potential to become reliable benchmarks useful for enhancing the liquidity and depth of equivalent tenor private sector securities. In the longer run this should create opportunities for further expansion of OMO collateral beyond just long-term government securities. The BR should publish its haircut regime based on maturity and credit spectrum (public vs. private securities) and consider an expanded set of quality collateral in stressed conditions that does not falls below a predetermined level of credit and liquidity risk.

O. Range of Counterparties in Open Market Operations

43. Background. The FSAP found that participation in Colombia's open-market operations was open not only to credit institutions, but also to broker-dealers, trust companies and pension funds. However participation was limited to 35 percent of deposits in the case of credit institutions, and to capital and reserves in the case of other companies. It is important for Colombian banks to have access to open-market operations, because of the liquidity risks they may run in the course of their business in terms of facilitating financial intermediation, and because of the serious systemic consequences of the lack of liquidity on their part. All central banks provide liquidity facilities of this kind to commercial banks. At the time of the FSAP there were also two non-bank broker-dealers which acted as primary dealers in government securities, accepting an obligation to make markets in government securities. The FSAP recommended that it was in the interest of the BR for these primary dealers to also have access to open-market operations as a quid pro quo for accepting a market-making obligation.^{4,5} There was no need for other counterparties (non-systemic brokers, trust companies, mutual funds) to have access to such liquidity under normal BR operations. This was to be undertaken as a medium priority over the medium term.

44. Actions. Authorities undertook an evaluation which was completed in January 2015 to decide whether financial agents should have access to BR operations. In line with the FSAP recommendations authorities have now restricted access to BR facilities to only credit establishments (mainly banks) and public primary debt dealers. Trust companies, non-primary public

⁴ The Federal Reserve Bank of New York undertakes routine repo operations in government securities with 'primary dealers' in U.S. government securities, some of which are not banks, because the government securities market is one of the Fed's chosen channels for the implementation of monetary policy and the primary dealers have a commitment to make markets and sustain liquidity in the government securities market. The primary dealers accept that commitment in exchange for the right to participate in open-market operations, and the Fed routinely checks their compliance with the market-making commitment.

⁵ The Fed provided liquidity to broker dealers during the financial crisis in 2008, but that was a temporary measure adopted in an emergency, and the facility has now been closed.

debt broker dealers or pension funds do not have access to these central bank operations and are able only to access BR liquidity through the payment system facility.

45. Views. Staff welcomes the clarification by authorities that only a restricted set of counterparties can access normal central bank operations in line with FSAP recommendations. However, when defining its set of eligible counterparties, best practice is for the central bank to first consider the objective behind the provision of liquidity, which may reflect a widening in its mandate beyond that of monetary policy implementation. In the case of monetary policy access by non-banks, consideration should also be given as to whether permanent access is warranted and or whether there is just a temporary need. Differentiating non-banks from banks in terms of access to facilities/operations may also be appropriate as this ensures competitive neutrality, allows for the management of moral hazard and the risks to the central bank balance sheet, while also reducing disintermediation risks. In the case of these non-banks, while emphasis should be placed on the systemic importance of the sector, as important is the ability for the central bank to regulate and direct the institutions. On the other hand, the provision of Lender-of-Last-Resort (LOLR) is at the discretion of the central bank and involves a case-by-case evaluation of the institution in question along with an assessment of the nature of the liquidity need. LOLR should only be provided to viable and solvent institutions, for a defined horizon, and subject to strict terms and conditions controlled, enforced and monitored by the central bank. .

P. Liquidity Standards for Broker-Dealers and Other Non-Bank Financial Institutions (NBFIs)

46. Background. The FSAP found that liquidity problems for broker-dealers could create systemic liquidity concerns and other risks to the payment systems. Broker-dealers remain highly vulnerable to liquidity risks given that many have the potential to take on large net intraday exposures that vastly exceeds their capital and liquidity buffers. These institutions remain closely interconnected through money and derivative markets, payment relationships with other financial companies, leveraged exposures as well as group exposures when part of a larger conglomerate. The FSAP identified two broker-dealers as being among the ten financial institutions with the most interconnections in the payments system. In response, the BR stood ready to provide intra-day liquidity to broker-dealers to contain the possible contagion from a liquidity squeeze. However BR liquidity provision was limited by the institution's holdings of eligible collateral government securities—although the BR had provided liquidity to other broker-dealers against corporate securities for a temporary period. Given that broker-dealers (unlike systemic banks) were not natural providers of liquidity in the financial system, the FSAP recommended that broker-dealers better manage their liquidity risks by tightening their liquidity requirements and advised supervisors to undertake more rigorous stress testing of these institutions. This was to be carried out with a medium priority over the medium term.

47. Actions. Authorities have confirmed that the liquidity risk indicator (LRI) will be applied to broker-dealers and NBFIs. Authorities have also and drawn on Basel III recommendations and further clarified the categories of liquid and high-quality assets, defined haircuts on liquid assets as key recommendations. With regard to supervisory enhancements, authorities require broker-dealers

of NBFIs to transmit an adjustment plan to the SFC, or prohibit carrying out new transactions, or accept new customers if there is non-compliance with regard to liquidity limits or the Liquidity Risk Indicator (LRI).

48. Views. Staff welcomes the strengthening of liquidity requirements for broker-dealers and NBFIs given their interconnected exposures to other financial institutions in the payment system. The availability of BR liquidity provision to systemic broker-dealers should be provided only on an appropriately collateralized and carefully assessed basis. In the long-term, however greatly enhanced liquidity risk management by broker-dealers and NBFIs remains a more effective approach to mitigate systemic liquidity risks compared to an automatic provision of BR liquidity to institutions that are not natural liquidity providers to the financial system. The SFC should continue to strengthen liquidity standards going forward to mitigate such financial stability risks and moral hazard concerns. Authorities should address the financial stability risks from large intraday risk exposures by broker-dealers and NBFIs as a complement to the LRI drawing on work done by the BCBS on its Principles for Sound Liquidity Risk Management and Supervision (2008) and the joint work done on monitoring tools for intraday liquidity management by the BCBS and the Committee on Payment and Settlement Systems (CPSS) in 2013. While the SFC is able to share information with the BR on liquidity risk management for broker-dealers and NBFIs, it should clarify under what circumstances it would limit supervisory information disclosure and exchange of information with the BR, notwithstanding existing MoUs on an institutions true liquidity position. There could be a potential risk that public funds could be provided to a broker-dealer or NBFI by the BR without it being fully informed about the viability of that institution.

Q. Stress Testing of Broker-Dealers and Other NBFIs

49. Background. As discussed above, the FSAP suggested that stress tests for broker-dealers and NBFIs would help these institutions manage liquidity risks they imply to the rest of the financial system. This was to occur as a high priority over the medium term.

50. Actions. The SFC performs internal tests on an ongoing basis to identify institutions' vulnerabilities, including: (i) assessing concentration of loans; (ii) using a vector error correction (VEC) model for nonperforming loans; and (iii) assessing bank and NBFIs resilience to liquidity and market risk shocks. The SFC intends to sequence planned stress tests for financial institutions, prioritizing banking institutions first. The scope for stress tests for regulated industries, such as broker-dealers and other NBFIs, will likely occur in the medium term. SFC does undertake stress test over the standard model for liquidity risk for broker-dealers since its implementation in November 2014.

51. Views. Staff welcomes the clarification of stress testing requirements for financial institutions. The authorities have started to provide results of stress tests for banks as part of Financial Stability Reports. Further enhancements to the stress testing regime and extension to broker-dealers and NBFIs should be made to ensure a consistent and transparent approach, and requirements should be communicated to the financial institutions which are subject to the stress testing exercises. Prudential measures that could be adopted from the results of the stress tests are

not formalized yet but are under discussion. This would help ensure prudential actions are tied to stress tests in addition to other qualitative supervisory recommendations under RBS, or through supervisory judgment. Staff recommends authorities tailor stress tests for broker-dealers and other NBFIs to their underlying business model and risks. This may mean, for example, more developed liquidity stress tests for broker-dealers, with a clear articulation of adverse run-off, and drawdown rates for funding (liabilities) and more adverse haircuts for asset values. A contagion stress test which links broker-dealers and NBFIs to other financial institutions in the payment system and to wider securities markets in Colombia would also be useful to monitor and assess systemic risks posed by broker-dealers and NBFIs. Moreover in the current conjuncture foreign currency and commodity shocks could also be assessed.

R. Prudential Requirement and International Standards

52. Background. At the time of the FSAP, Colombia had not formally adhered to any of the Basel capital standards, even though the regulation followed many of the Basel I rules. The capital adequacy ratio was found to be higher than the minimum Basel I standard but there were some gaps in its scope of application and in the range of risks covered; and some of its components did not have the appropriate loss absorption capacity. In addition to recommendation for the enhancement of the capital adequacy rule, the FSAP recommended the move in the medium term to Pillar 2 of Basel II. The FSAP recommended also that, to safeguard prudent long-term funding at smaller banks, the authorities address liquidity risk at different time-horizons by adopting a version of the Basel III NSFR. While the FSAP talked positively of the Colombian system of countercyclical (dynamic) provisioning, it recommended extending provisioning requirements on consumer credit to the unused portions of credit lines and tailoring provisioning rates to the debt service of the borrower.

53. Actions. The authorities adopted a revised capital adequacy regulation that took effect on August 1, 2012 with a view to strengthen the quality of capital by incorporating some of the Basel III recommendations. The capital regulation adopted includes: (i) a minimum Tier I capital of 4.5 percent of risk weighted assets; (ii) deduction of new goodwill from Tier I capital with a grandfathering clause for existing goodwill; (iii) some restrictions for the inclusion of voluntary reserves and current profits, to include only those that are expected to be permanent; (iv) deferred tax assets and pension liabilities to be deducted from regulatory capital; (v) risk weights broadly in line with Basel I framework with capital requirements for market risk following Basel II recommendations; and (vi) amendments on the consideration of minority interests to mitigate the risk of multiple leveraging. Thanks to the transition period and favorable economic conditions credit institutions have been able to transition to the new rules without interrupting access to financial services. Authorities have also issued a decree in September 2014 that recognizes hybrid instruments as additional Tier 1 or Tier 2 instruments, taking into account Basel III recommendations. Authorities are also preparing to issue regulations to further strengthen the capital adequacy requirement to adopt Basel II Pillar 2-type buffers, conservation and potentially D-SIFI buffers based on the BIS methodology of a D-SIFI. Work is also underway to adequately

define the methodology to calculate operational risk and with regard to pillar 2 to be able to undertake ICAAP reviews at individual and conglomerate level.

54. Views.

- The authorities took welcome steps after the FSAP to strengthen the capital adequacy measure of Colombian banks to bring it more into line with the Basel III measure. As expected, since the introduction of the new capital measure capital ratios declined across banks, both on a solo and consolidated basis. While the new Colombian capital regulation better defines Tier 1 capital, it still includes a broader recognition of Tier 2 (subordinated debt) as capital and is not as strict in terms of deduction of future intangibles and goodwill from base capital calculations relative to Basel III capital standards. Moreover Basel III requires goodwill to be deducted from Common Equity Tier 1 capital. The recognition of the capital conservation and countercyclical buffers in terms of new regulation at end-2015 should also help adjust banks' capital in line with their risks over time. It should be made clear that the move to risk-based supervision is likely to take time before the SFC is fully able to settle on the approach to setting Pillar 2 buffers for Colombian banks. The level or the ranges that the SFC intends to set for either the capital conservation, countercyclical, and D-SIFI capital buffers (if any) and Pillar 2 capital buffers will be specified in the regulation to come from authorities at end-2015. Authorities have also not identified D-SIFIs yet though have decided on the D-SIFI methodology using the BIS approach. Staff would also welcome authorities' normal approach to publish regulatory proposals and technical supporting document relating to the capital proposal to enable banks, financial or mixed groups and conglomerates to have some clarity regarding their future capital needs. The authorities should make public their discussion and proposals in this regard, including any request for market feedback on such proposals.
- **On liquidity risk, the SFC LRI measure is broadly in line with the LCR measure as part of Basel III.** This development should enable the authorities to transition smoothly to the LCR in the future. Moreover, the SFC has put in place an enhanced liquidity risk management system (SARL) as well as the various liquidity risk measures and methodologies. Banks are also required to provide information on liquidity and foreign currency exposure on a solo and consolidated basis, including liquidity stress tests. In this regard it will be important for the SFC to connect up liquidity stress tests with solvency and contagion stress tests to map out systemic risk under adverse conditions, together with a contingent funding plan. Moreover, the SFC will need to ensure that intraday liquidity risk management and collateral are robust and banks public disclosure around these measures is made. This should improve as Colombia starts to implement IFRS and Pillar 3 of Basel II. The FSAP did recommend that, to safeguard prudent longer-term funding at smaller banks, the authorities should continue moving forward with their liquidity risk metrics and adopt a version of the Basel III Net Stable Funding Ratio. This would require banks to maintain a stable longer-term funding profile in relation to their on- and off-balance sheet activities, and limit over-reliance on short-term wholesale funding.
- **The SFC has never objected to the use of an internal model for meeting capital or provisioning requirements, though no entity has yet decided to pursue this approach.** Any

assessment of use of internal models would require significant resources by the SFC to fully understand and assess the quantity and quality of data used for the models and whether risks were being fully captured by such models. If the SFC is using reference provisioning and loan loss models for certain portfolios (retail or commercial or others). The inputs into this exercise and parameters (stressed transition matrices) should continue to be updated regularly to ensure provisioning remains robust on a forward-looking basis.

- As the SFC transitions to IFRS, it remains alert to the differing provisioning standards between IFRS and those required by supervisors.** It could be that IFRS adopted by Colombian banks still incorporates IAS39 which recognizes impairment losses based on an incurred loss-based model and which only permits recognition of credit losses supported by objective evidence. This could mean that, compared to the SFC expected loss approach, impairments could be too little and too late and provisions are also insufficient and too late. While the new standard IFRS9 has now replaced IAS39 and would be more aligned to the expected loss approach, it will take time for it to replace IAS39 (this could be as late as 2018). We are pleased that the SFC will ensure its supervisory loan classification and provisioning standards are able to recognize loan losses early, fully and such losses are robustly provisioned for. Staff is pleased to learn that the SFC will consider the new standards of IFRS 9 and plan to compare it with the current SFC provisioning scheme and determine whether under the new IFRS9 financial institutions have adequate provisions to address credit risk.
- It should be noted that the countercyclical loan loss provisioning scheme in Colombia allows each credit institution to create an additional buffer of loan loss reserves in good times, in order to cushion a rise in specific provisioning costs during a downturn.** This system is capable of creating a broadly adequate buffer for a downturn. However, FSAP simulations showed that the countercyclical buffer may not be depleted fully during a moderately severe downturn episode, owing in part to an asymmetry between the rules for accumulation and draw down. The FSAP recommended that authorities consider phasing in countercyclical capital buffers to address systemic shocks. This was important to understand how such a (macroprudential) system would dovetail with the countercyclical (microprudential) loan loss provisioning. The SFC is working with the MHCP as part of the project to converge to Basel III standards where the countercyclical buffer will be one of the rated elements and the interaction of the countercyclical mechanism is built into the scheme of provisions.
- In addressing broader asset classification issues the SFC does not require banks to rate all credit exposures including off-balance sheet operations, such as letters of credit and bank collateral and sureties.** Banks however are expected to report monthly data on portfolios as is reported to the credit bureau. While obtaining this additional credit risk information would be useful for the SFC, it could require significant resources and IT infrastructure to manipulate and interpret such large data sets. However, the SFC does require supervised entities to provide different credit information to determine asset quality such as monthly financial statements with provisions, detailed active credit operations by portfolio and debtor on a quarterly basis, and follow up activities on reporting loan quality month, every six months and at yearly intervals.

S. Financial Consumer Protection

55. Background. The FSAP talked generally about the importance of strengthening consumer protection for enhancing financial services markets and ensuring resources of the SFC were directed towards consumer protection matters. The establishment of comprehensive consumer protection systems, as described in Law 1328 of 2009, was a major step forward. Further improvements needed to be made by strengthening oversight of the activities of insurance agents. The FSAP suggested that consideration be given to establishing a basic public registration system for insurance agents, including basic suitability requirements, and minimum educational standards, and a code of conduct and training. The system should include a public database with information on those agents who have been formally disciplined for actions in the conduct of insurance business or disqualified from registration. The FSAP went further by recommending an industry based self regulating organization, overseen by SFC that benefits both industry and consumers.

56. Actions. Authorities have implemented several enhancements, such as financial consumer support system, to ensure supervised institutions create a customer service culture, providing more detailed information for the customer. The SFC has also used its jurisdictional powers responding to more requests to settle disputes between consumers and supervised institutions. The SFC is also committed to reviewing the Financial Consumer Ombudsman regime and to strengthening it based on international best practices. There are additional work streams in place by the SFC to address abusive clauses in contracts as well as ensuring the complaint procedures in addressing complaints from consumers robust.

57. Views. Staff welcomes the continued progress in strengthening consumer protection. Prudential supervisors around the world share a common goal to build or restore consumer confidence, in tandem with tightening prudential requirements, to deliver consumer protection initiatives that aim to promote responsible finance compatible with financial stability. Staff believes that Colombian authorities' work in relation to consumer protection matters is directed to such a dual objective. Around 56 employees of the SFC deal with consumer protection matters also staff in charge of supervision are also involved in the process of handling complaints and enquiries even though this does not remain their primary activity. Staff reiterates that supervision which seeks to address and mitigate financial stability concerns should be prioritized above consumer protection issues. To ensure prioritization of supervision without sacrificing consumer protection objectives the SFC ensure that the customer service system (SAC) is used by the supervisory units of the SFC to input into risk-based supervision. This then allows the SFC to define the supervisory plan, resources and objectives to perform timely assessments of the SAC including the consumer protection department. The FSAP had also raised specific consumer protection issues in the area of insurance. There is currently a project to regulate the adequacy of insurance intermediaries and disclosure of information. There is also an additional project to create a registry of authorized products, sanctioned subjects and intermediaries authorized by insurers.

BANKS' CAPITAL¹

In recent years Colombian banks, either as part of banking groups or as part of financial and mixed conglomerates, have expanded operations cross-border in Central America and parts of Latin America. This expansion was in part funded by equity and debt issuance raising the question of balance sheets growth and the adequacy of banks' capital. This chapter describes Colombia's banks' capital framework in comparison with some regional peers and in light of the recent reforms and planned regulatory changes. The chapter indicates that the quality of capital has strengthened considerably since the last Fund's Financial Sector Assessment Program Update in 2012. Improving the quality of loss-absorbing capital further and clarifying supervisory expectations on buffers that are calibrated against a comprehensive assessment of risks, would benefit Colombian banks by supporting strong credit ratings and low funding costs. These are areas in which Colombia's regulators are already moving forward aggressively.

A. Introduction

1. A robust bank capital framework helps ensure financial stability and sustain bank lending during economic downturns. Bank provisions and profits are an important buffer that can be used to absorb expected losses. However, capital provides banks with a cushion to absorb unexpected losses, and has the potential to reduce the risk of bank failures and prevent interruption of banking services and financing to the real economy. Evidence based on a large sample of Italian firms' during 2007–10 shows that a 10 percent decline in bank credit can curtail firms' investment by 8–14 percent over four years through the bank lending channel (Cerruti, 2013).

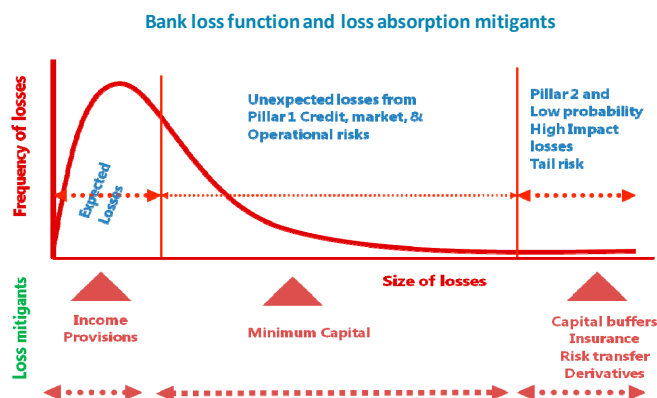
2. Better capitalized banks weathered the 2008 global financial crisis with less difficulty. Banks in both advanced and emerging economies transmitted the funding and liquidity shocks of 2008 to the real economy. However, banks that had more high-quality capital had to curtail lending less, even when they relied strongly on wholesale funding and had low structural liquidity (Kapan and Minoiu, 2013). Moreover, recent evidence from Malaysia suggests that bank subsidiaries that are reliant on parent capital have lower own capital on the assumption that the parent will provide support in crises. These banks were found to do much worse in FSAP solvency stress tests than standalone banks that have higher and more robust capital.²

¹ Prepared by Izabela Karpowicz and Mohamed Afzal Norat. We are grateful for comments from Valerie Cerra, Robert Rennhack (both WHD), and Mamoru Yanase, Pierpaolo Grippa, Caio Ferreira, Fabiana Melo, Christopher Wilson, and Joseph Maloney (all MCM), and Ingrid Juliana Lagos Camargo and Jorge Castano Gutierrez (both SFC, Colombia).

² Norat (2014) shows solvency, liquidity, and contagion stress tests for conventional, Islamic and offshore banks in Malaysia as part of the 2012 FSAP.

3. Certain banks, in particular domestically systemic banks or those operating internationally, can benefit from capital buffers above the minimum prescribed by the regulator that can take into account systemic risks as well as risks from cross-border operations.

The minimum capital requirement can be used to absorb unexpected losses, stemming from credit, market, liquidity, or operational risks, which impact all banks. However, depending on the bank’s business model and specific risk profile, losses from additional risks may not be covered by minimum capital. This may be of particular relevance for systemically important financial institutions (SIFIs) and the externalities implied by their possible failure. In the language of Basel standards, Pillar 1 minimum risk-weighted capital requirements may be insufficient to guarantee banks’ solvency in situations of stress from systemic risks which are better addressed by Pillar 2 capital buffers.

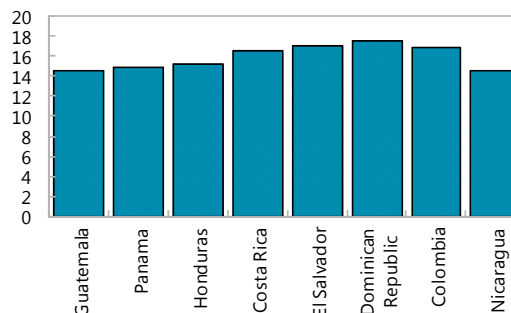


B. Colombian and Regional Banks Capital Comparison

4. Capital definitions differ across Central American countries and comparisons must be made with utmost caution. Some cross country differences in the computation of capital include, for example, the treatment of the revaluation of fixed assets; the accounting of profits from current or past accounting periods; treatment of investments in capital instruments or requirements on donated capital; and treatment of some deductions from capital (i.e. grandfathering of some capital components). Moreover, capital differs depending on the degree of consolidation

undertaken, whether at individual (solo) bank level, banking group level, or at even higher at financial conglomerate level. Differences in the national definition of capital and accounting standards across Central America and Colombia imply that any direct comparison of total regulatory capitalization should be interpreted with caution.

Bank Regulatory Capital to Risk-Weighted Assets, end-2014 (Percent)

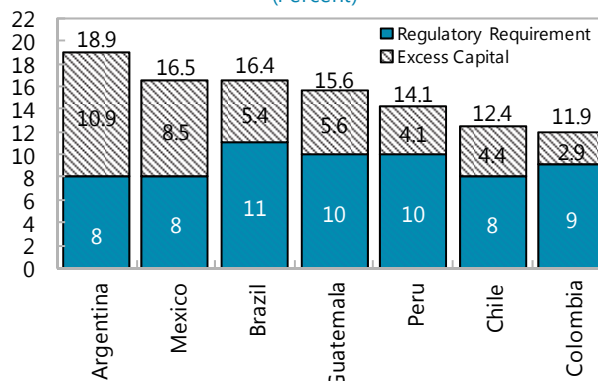


Sources: Country authorities, and Fund staff calculations.

5. Total regulatory capital in Colombia and other Central American countries is well above the regulatory minimum. Reported total regulatory capital, based on capital definitions specific to each Central American country where Colombian banks hold subsidiaries and in Colombia, is above the regulatory minimum at an individual bank level. Moreover, using the national definitions of total regulatory capital, Colombia’s capital is above that of its Central American peers.

6. However, systemic Colombian banks have lower levels of capital in excess of the regulatory minimum than some regional peers. Regulatory capital requirements differ across Latin American countries with some higher—Brazil (11 percent), Peru, Guatemala and Uruguay (10 percent)—and some lower than Colombia’s (9 percent)—Chile, Argentina and Mexico (8 percent). The decision to choose a given level of national minimum regulatory capital reflects a series of factors, including supervisory judgment and discretion. The four largest banks in Colombian have lower capital than the large banks in some other Latin American countries. Total capital ratios in excess of the regulatory minimum requirement, stood at 2.9 percent, the lower end of regional peer comparisons.³

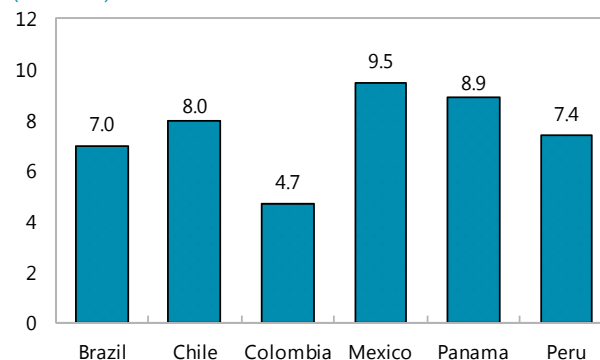
Regulatory Capital Requirement and Total Capital, end-2014
(Percent)



Source: Bankscope, company filings, country Financial Sector Stability Assessments, and Article IV reports.

Colombian banks have lower levels of capital according to a market-based standardized higher quality of capital measure—the Standard and Poor’s risk-adjusted capital measure—which deducts all goodwill on the balance sheet from banks’ respective total adjusted capital. This measure is important inasmuch as Colombia has seen a large number the mergers and acquisitions following the financial crisis of the late 1990s that, together with the geographic expansion of the largest banks over the last few years, has created large amounts of goodwill assets.⁴

RAC Ratio for the Largest Rated Latin America Banks, end-2013
(In Percent)



Source: Standard & Poor’s.

³ According to data published by the SFC the total capital ratios of the four largest banks is 16.1 percent on an individual basis at end-December 2014. See [link to SFC web site](#).

⁴ Several market commentators and bank analysts have pointed to the lower quality and quantity of Colombian banks’ capital. For example: S&P (2014) “Colombian Banks Capital Lags Behind Latin American Peers,” p. 9, Report Top Colombian Banks; JP Morgan (2014) “Large Colombian Banks Have Low Tier 1 Ratios in Spite of Having Undertaken Common Equity Issuances in Recent Years”, p. 25, Report - Colombian Banks Taking the Long Term View; Moody’s Investor Service (2015) “However Colombian banks capitalization is expected to remain low despite equity issuance”, p. 14, Report – 2015 Outlook Latin American Banks. According to Colombian authorities, the goodwill amounted to Col\$6.4 billion at end-2014 and, if deducted from capital it would reduce the adequacy ratio by 0.4 percent.

7. However, lower level of high quality capital of Colombian banks is offset in part by strict loan-loss provisioning and robust asset quality. The supervisor —*Superintendencia Financiera de Colombia* (SFC)—, requires Colombian banks to undertake strict loan-loss provisioning, based on a forward-looking expected loss approach rather than a backward looking incurred loss approach, to ensure losses are recognized fully and timely. Indeed, the SFC has also made sure that Colombian banks continue provisioning on the stricter regulatory expected-loss approach rather than the weaker provisioning embedded in IFRS (see Chapter 7). These additional provisions and banks' reserves add loss absorbency for Colombian bank's balance sheets. Moreover, non-performing loans remain low (around 2 percent) further supporting Colombian bank's loss absorbency. Another consideration is that risk weighting on credit is generally high in Colombia when compared to other peer countries. Most loans (excluding mortgages and financial leases) have 100 percent risk weightings, and even the risk weightings on mortgages (50 percent on un-restructured and 100 percent on all others) are higher than in many other countries pushing down capital ratios by a relatively larger amount.⁵ Finally, banks maintain an adequate level of liquid assets to meet liquidity requirements (contractual and non-contractual) and fulfill the 100 percent limit on the internal liquidity ratio over a period of 30 days.⁶

C. Macrofinancial Implications⁷

8. A cross-border spillover analysis was conducted to estimate the effects of stress to international banks that lend to Colombian borrowers (banks, corporates, and public institutions) which depend on banks' capital levels. The analysis covers direct cross-border lending by internationally active banks as well as lending through affiliates. The exercise draws on the Bank Contagion Module of the IMF's Research Department, based on bilateral banking statistics of the Bank for International Settlements (BIS). A first simulation considers losses on asset holdings of international banks that reduce (partially or fully) their capital, based the assumption of a decline in the value of different types of assets (e.g., claims on the public sector, the banking sector, and the non-bank private sector of an individual country or group of countries). After the asset loss shock, the second round of simulation assumes that banks restore their capital adequacy ratios through deleveraging (i.e., sale of assets or refusal to roll over existing loans), thus reducing credit to all borrowers, including those in Colombia. In the third round, as banks deleverage with respect to their borrowers, including other banks, the simulation allows for further fire sales and scaling back of credit given the losses experienced by banks with insufficient capital buffers. Final convergence in the model is achieved when no further deleveraging occurs as banks meet their capital adequacy requirements (Cerruti et al., 2012).

⁵ Although Colombian banks are not required to hold countercyclical capital buffers, the credit risk assessment includes a countercyclical provision since 2009. In December 2014, countercyclical provisions reached Col\$2.68 billion.

⁶ In 2014, the four largest credit institutions maintained a level of liquid assets 3.9 times the value of their liquidity requirements.

⁷ This section has benefitted from the inputs of Camelia Minoiu and Paola Ganum.

9. The model simulations suggest that foreign credit availability to Colombian borrowers could be significantly affected by losses on international banks assets. Based on the assumed decline in the value of banking system assets in a country or group of countries (10 percent in the exercise), the model estimates the capital shortfall of foreign banks and the consequences of their deleveraging for the provision of credit to Colombian borrowers. (This exercise makes the extreme assumption that other banks do not step in to fill the gap in credit, which has been the experience so far.) The impact distribution is assumed to be proportional to the existing share of local and cross-border claims in total foreign claims. The largest direct impact of this shock in terms of reduction of international banks' credit to Colombian borrowers would stem from combined losses in the U.S. and Canadian banks' assets (3.9 percent of GDP). Considering individual countries, the shocks that would generate the largest adverse effects on credit to Colombian borrowers would come from Canada (2.7 percent of GDP), Spain and U.S. (1.2 percent of GDP each), U.K. (0.2 percent of GDP), Japan (0.8 percent of GDP) and France (0.4 percent of GDP). Recent experience has, however, shown that international financial instability has not jeopardized the availability of domestic credit by Colombian banks.

Spillovers to Colombia from Shocks to International Banks' Exposures, September 2014¹
(Percent of GDP)

Country	Impact on Credit Availability ²	Impact on Cross-Border Credit Availability ²	Impact on Local Credit Availability ³
USA	-1.2	-0.7	-0.6
Canada	-2.7	-0.2	-2.4
USA and Canada	-3.9	-1.3	-2.7
UK	-0.2	-0.1	-0.1
Switzerland	0.0	--	--
Germany	0.0	--	--
France	-0.4	-0.3	0.0
Spain	-1.2	0.0	-1.1
Netherlands	0.0	0.0	0.0
Italy	0.0	0.0	0.0
Greece	0.0	--	--
Portugal	0.0	0.0	0.0
Japan	-0.8	-0.8	0.0
Korea	0.0	--	--
Taiwan (Prov. of China)	0.0	0.0	0.0
Selected European Countries ⁴	-1.7	-0.2	-1.5

Source: Research Department's Bank Contagion Module based on BIS, ECB, IFS, and Bankscope data.

¹ Magnitude of the shock is 10 percent and applies to on-balance sheet claims of all borrowing sectors.

Dashes indicate lack of disaggregated foreign claims data into cross-border vs. local claims.

² Reduction in foreign banks credit to Colombia due to the impact of the analyzed shock in their balance sheet, assuming uniform deleveraging across domestic and external claims.

³ Reduction in cross-border vs. local credit is assumed to be proportional to international bank's cross-border and local claims, respectively.

⁴ Greece, Ireland, Portugal, Italy, Spain, France, Germany, Netherlands, and UK.

10. The starting level of capital of individual banks is important for assessing robustness against shocks that spread through direct interbank linkages. The level of capital is essential in this analysis, as it represents the loss-absorbing capacity of each institution. For instance, with the

same level of interbank exposure, a bank with relatively higher capital has a stronger resilience against direct and spillover effects from other banks. Although the dynamics of the RES contagion model is based on the quantity of banks' capital, if capital quality is low it cannot be easily deployed in circumstances of stress and, therefore, the "true" capital quantity is lower. Incorporating a critical view of capital quality in the analysis would be importance, in particular for highly systemic and/or interconnected institutions that can act as conduits of shocks to the rest of the network if they are not well capitalized.⁸

D. Basel Standards and Sequencing of Capital Stacks

11. The capital stack refers to the capital structure of the banks and is designed to address different types of risks. The opportunity for jurisdictions to impose both risk-weighted minimum and above minimum capital requirements reflecting banks' risk profiles can be traced to the Basel Accord. The most current version of those accords, Basel III, is the latest consolidated international standard in capital and liquidity regulation for banks. Basel III builds on the Basel II structure of three pillars. Pillar 1 sets standard and advanced options to calculate minimum capital for credit, market and operational risk. The Pillar 2 standards require banks to assess their capital adequacy as a whole and require supervisors to review, and if necessary amend, the banks' own assessments and level of capital (Box). Pillar 3 sets transparency and disclosure standards.

Box 1. Basel II – Pillar 2

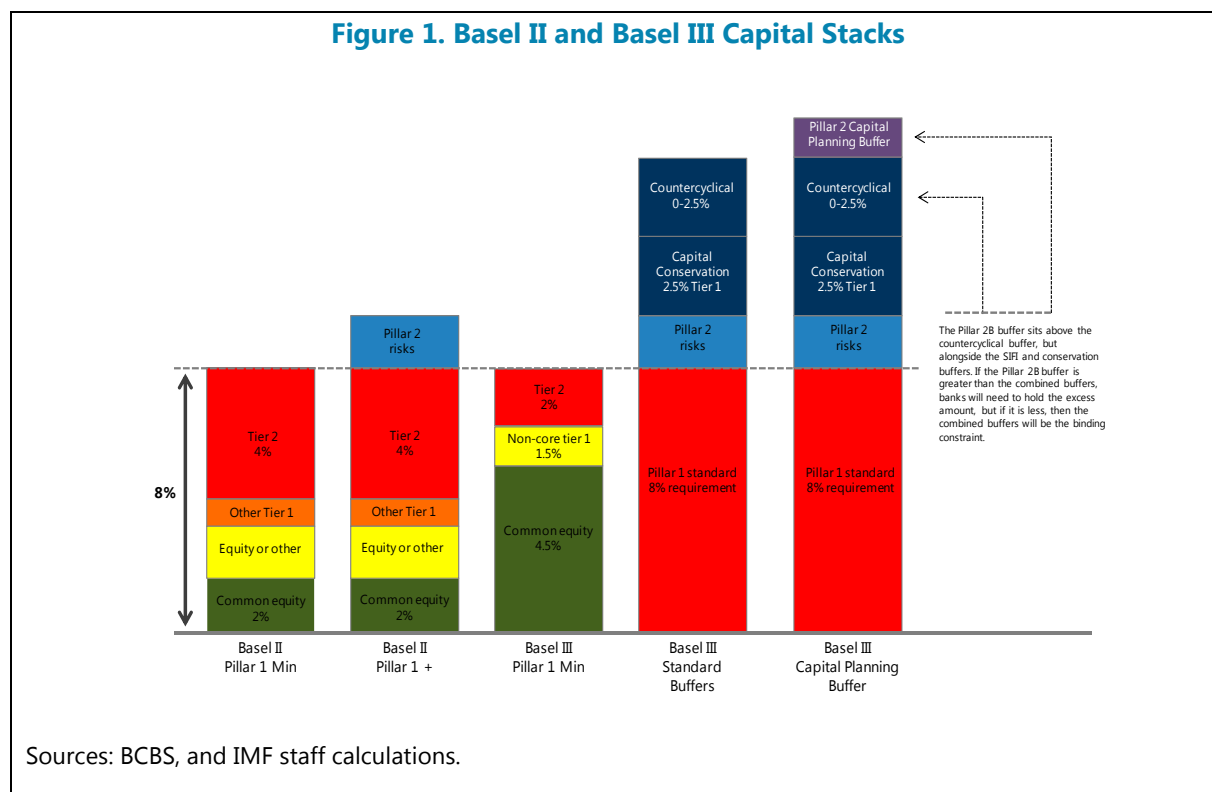
These are three main categories of risk to be considered for Pillar 2 assessment in the supervisory review and evaluation (SREP):

- **1st category:** risks not completely covered by Pillar 1: credit concentration risk, "residual risks" associated with credit risk management (CRM) techniques,
- **2nd category:** risks not addressed by Pillar 1: interest rate risk in the banking book, liquidity risk, strategic and reputational risks.
- **3rd category:** risks related to external factors, e.g. business cycle effects and macroeconomic environment.

In addition to the above risk categories, the following issues should be taken into consideration: corporate governance, role of Board and senior management, risk management systems and internal controls. Accordingly, banks should: (i) develop a thorough understanding for Pillar 2 risks across all administrative levels; (ii) prepare a detailed road map for capital self assessment; and (iii) reach a self assessment or estimation of bank's capital requirements and inform the supervisor about the results .

⁸ Compared to the results of the same simulation performed a year ago (based on 2013Q4 data) and reported in the 2014 Selected Issues Paper for the Article IV Consultation, the data in this exercise has been expanded to account for the extent to which Banco Santander Colombia and BBVA are funded with local customer deposits. As a result, the deleveraging of internationally active Spanish banks is significantly less impactful for Colombia.

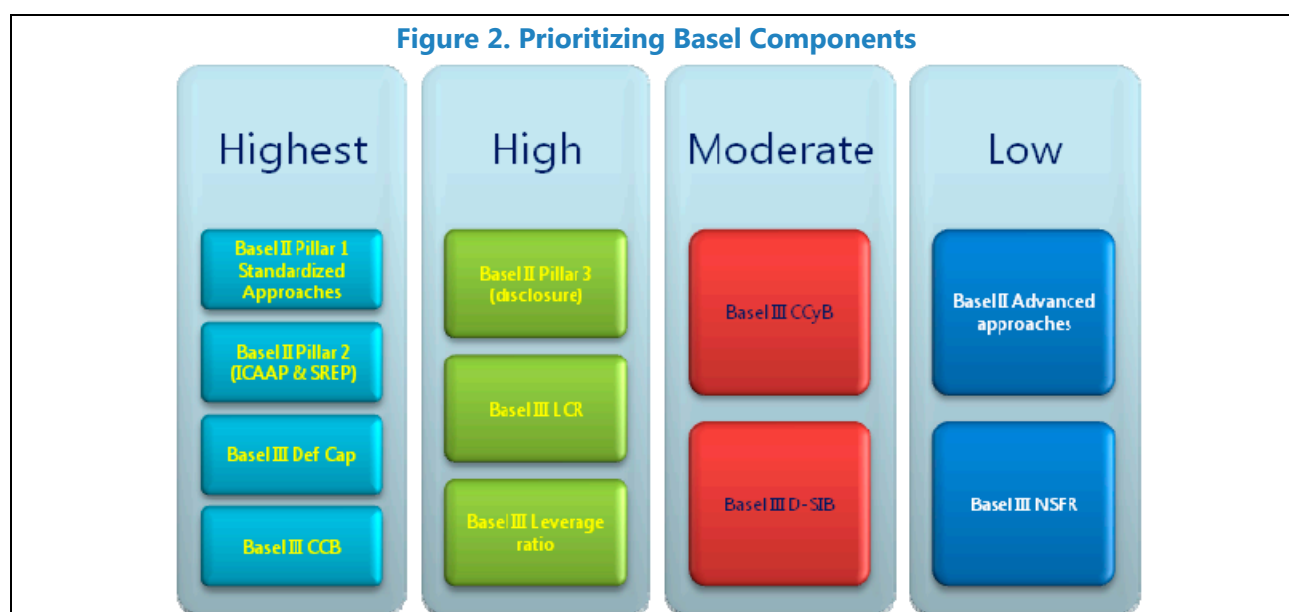
12. The capital stack can be defined in terms of minimum regulatory capital plus above minimum capital (Figure 1). The additional capital levels are termed “buffers” and are “stacked” on top of each other as in Figure 1. In the language of Basel standards, the stacks are labeled as Pillar 1 minimum requirement, plus Pillar 2 capital buffers (first two columns from left), which are equivalent to the minimum requirement in Pillar 1 of Basel III capital buffers (last two columns). Pillar 1 standard (8 percent) Basel III requirement consist of 4.5 percent Common Equity Tier (CET), 1–1.5 percent non-core Tier 1, and 2 percent Tier 2 capital instruments. The additional stack, the capital conservation buffer (CCB), ensures that banks build up capital buffers outside of periods of stress that can be drawn down when losses are incurred, while the countercyclical buffer (CCyB) aims to ensure that banking sector capital requirements take account of the macro-financial environment in which banks operate, and is meant to be deployed by national jurisdictions when excess aggregate credit growth is judged to be associated with a build-up of system-wide risks. Finally, the domestic systemically important banks (D-SIB) buffer accounts for the size, complexity, and interconnectedness of banks and their greater tendency to trigger contagion and systemic risks for which additional capital requirements may be needed. Finally, based on supervisory discretion, banks may want to apply additional Pillar 2 capital planning buffers to cover risks on a forward-looking, planning basis (fifth column).



13. Sequencing the move to an enhanced capital framework is not without challenges. Implementation challenges for emerging markets may involve, among others, the need to adjust legal frameworks and to replenish capital, the latter possibly through structured instruments, given that their economies are growing faster and are more reliant on bank funding while market volatility

is also higher (Basel Committee, 2014). Many countries that are about to incorporate Pillar 2 buffers into their framework already apply a minimum capital requirement of more than 8 percent—typically between 9 and 12 percent. Colombia, for instance, imposes a minimum requirement of 9 percent on total capital and 4.5 percent on common Tier 1 capital. The question arises on how to attribute the current capital above minimum into additional buffers recommended by enhanced standards. Is the existing minimum capital equivalent to the 8 percent and therefore any Pillar 2 add-ons are incremental? Or does some or all of the difference between the 8 percent and the current capital adequacy requirement represent implicitly a Pillar 2 component?

14. Cross-country evidence suggests that countries have prioritized certain components while moving to Basel III. Through its Financial Sector Assessment Program (FSAP) and technical assistance (TA) work, the Fund has found that a gradual move to the better-quality capital measure defined under Basel III has worked well and has strengthened loss-absorbency for banks. Based on domestic circumstances, and existing capital frameworks, many emerging market countries have prioritized certain Basel II and III components above others when transitioning from Basel III (Figure 2). A number of countries have found that when domestic banks do not have complex exposures, requiring a simpler, standardized approach to risk-weighting, or adopting Pillar 2 capital buffers to account for risks not captured by Pillar 1 minimum capital, was desirable. Moreover, when transitioning to Basel III, countries have aimed to adopt the capital definition and conservation buffer ahead of some other Basel III elements, such as the liquidity and leverage ratios, or Basel II Pillar 3 disclosures.



E. Sequencing of Colombia's Capital Stack

15. The FSAP Update in 2011–12 recommended strengthening Colombian banks' capital and loss absorbency. At that time, Colombia had not formally adhered to any of the Basel capital standards, even though the regulation followed many of the Basel I rules. The capital adequacy ratio was found to be higher than the minimum Basel I standard but there were some gaps in its scope of

application and in the range of risks covered; and some of its components did not have the appropriate loss absorption capacity. Banks were required to maintain a capital adequacy ratio of 9 percent of risk-weighted assets for credit and market risks on a solo and consolidated basis. Capital for market risk did not cover foreign subsidiaries and the SFC could not require capital for other risks. The definition of capital at the time included voluntary reserves and did not deduct goodwill and investments in unregulated subsidiaries. The FSAP also found that the risk weight applied for exposures with sovereigns was low and independent of risk (zero for the local government and 20 percent for foreign governments).

16. Since the FSAP, Colombia has developed a more robust capital framework. The Financial Regulation Unit (FRU) at the Ministry of Finance (MoF), together with the SFC, introduced a new enhanced capital measure in August 2012 (implemented in August 2013), which sought to enhance the quality of capital held by Colombian banks along Basel III lines. The following changes were introduced in the new capital framework:

- committed assets, such as pension liabilities (unamortized actuarial value calculation) and net deferred assets, as well as (ii) intangible assets, such as new goodwill are deducted from common Tier 1 capital. Existing goodwill up and until 2012 was grandfathered and could remain part of capital;
- the minimum CAR was set at 9 percent while the new minimum common Tier 1 capital was set at 4.5 percent;
- current profits (conditional on the irrevocable commitment to capitalize or increase legal reserves prior to SFC approval) could be included in the Tier 2 capital;
- voluntary reserves could be recognized as part of Tier 2 capital up to a limit of 10 percent of total regulatory capital conditional on a commitment to keep these reserves for at least 5 years and approved by the SFC;
- valuation of the real estate was excluded from the measure while valuation of some investments (in debt available for sale and equity, with a haircut) was reduced to 30 percent.⁹

17. The recognition of minority interests at a consolidated level further bolstered bank capital. The consolidated solvency ratio had to be met by all credit institutions (on a quarterly basis) and is calculated on the consolidated financial statements of all financial institutions, by netting out the equity of the financial group. Moreover, in the consolidation process, only the participation of minority investors who are unrelated parties were recognized as minority interest and could thus add to capital in which case unconsolidated investments were not deducted from the capital of related parties. These new regulations maintained the minimum regulatory capital at 9 percent of

⁹See Chapter 7 for more detail.

risk-weighted assets and created a new measure, the "Ordinary Basic Capital" which follows the criteria for classification as core tier 1 capital with the minimum requirement of common equity of 4.5 percent of the risk weighted assets.

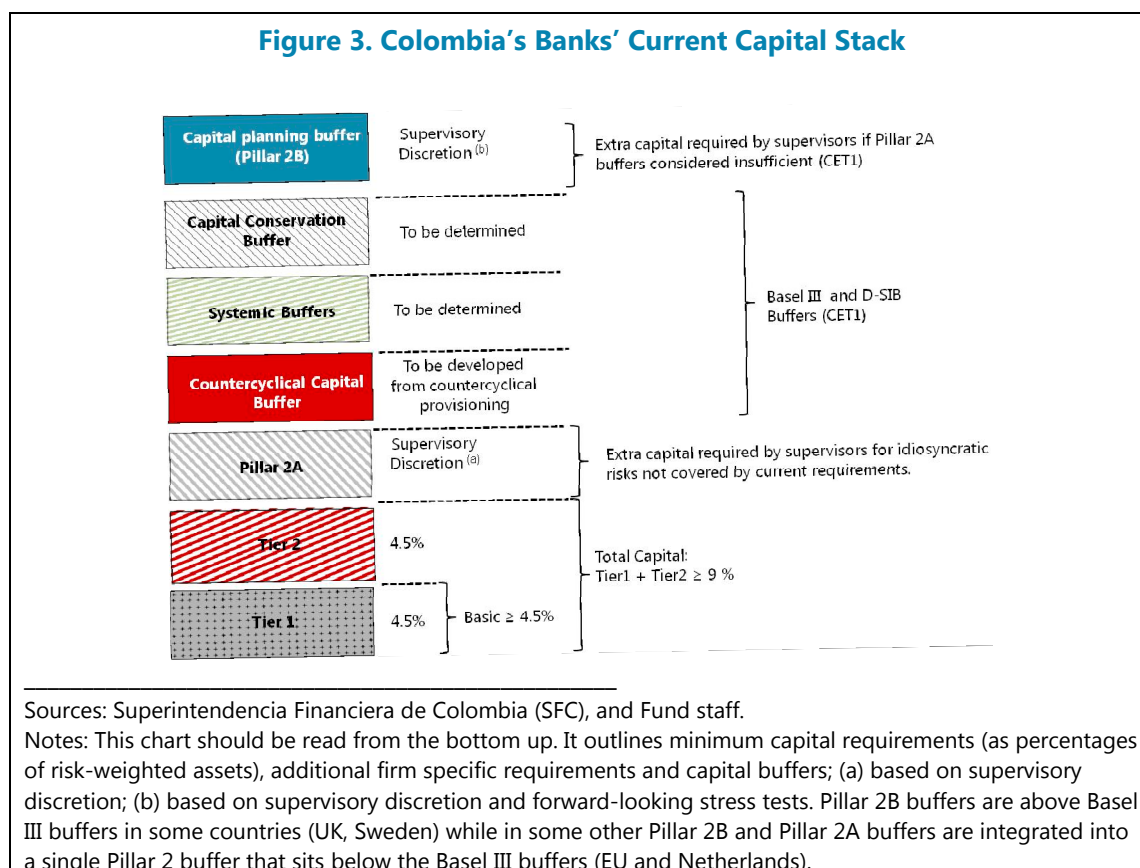
18. As expected, following the introduction of the improved capital measure, capital ratios declined across banks and other financial institutions. During 2013, banks, financial corporations and finance companies increased their capital by Col\$9.8 billion by issuing debt and equity and reached a technical worth of Col\$53 billion by end-2013. Nevertheless, aggregate capital ratios fell from 17.2 percent in July 2013 to 15.2 percent at end-2013, closer to the ratio prevailing before capital enhancements, while regulatory common Tier 1 capital to risk-weighted assets declined from 12.6 percent to 10.2 percent. At the consolidated group level capital adequacy had also fallen bringing to light the strength of the new measure.

19. As the SFC was moving to risk-based supervision (RBS), the FSAP further recommended tailoring capital requirements of individual banks to their risk profile—i.e. the Pillar 2 of Basel II framework. At the time of the FSAP, the SFC did not have the authority to require higher capital for individual banks on the basis of their individual risk profile. The move towards RBS for banks and nonbanks by the SFC, which would help identify risks and allocate supervisory resources to where risks were greatest, could be complemented by above minimum, risk-weighted, Pillar 2 capital requirements. Pillar 2 capital would help align banks' capital with their risk profile in the event the calculation of Pillar 1 capital does not fully capture all the risks banks are exposed to. In addition, as a powerful signaling tool, the application of Pillar 2 capital would help the SFC indicate to the Board and management where a reduction in the risk profile of a bank may be required.

20. While the new capital framework enhanced loss-absorbing capacity, it would benefit from moving forward with the implementation of Basel III. The current capital stack, which is predominantly based around minimum Pillar 1 requirements, is not as large or of as high quality as Basel III (Figure 3). The Colombian capital regulation has yet to fully define the size of Pillar 2 buffers (Pillar 2A and 2B) and the type of capital instruments that make them up (CET1 or Tier 1). Moreover, Basel III capital buffers (CCB and CCyB) and the D-SIB buffer remain undefined both in terms of quantity (as a percentage of risk-weighted assets) and quality (CET1 or Tier 1).

21. Recent decrees, and regulatory decrees to be finalized by end-2015, will bring the capital definition closer to Basel III standard and define Pillar 2, Basel III and D-SIB buffers. The authorities issued a decree in September 2014 to recognize hybrid instruments as additional Tier 1 or Tier 2 regulatory capital in line with Basel III and are also preparing to issue a decree to further strengthen the capital adequacy requirement by end-2015. The regulator (the FRU) has recently issued for public comments draft regulation that aims at strengthening instructions on tier 2 hybrid instruments loss absorption criteria and granting the SFC the authority to require higher

capital for credit institutions on the basis of their risk profile in line with Basel II Pillar 2.¹⁰ Specifically, with regards to hybrid instruments, going forward, they will have equity-like features¹¹ while subordinated debt will be phased out from the capital beginning April 2016. Basel III CCB and CCyB, and potentially also D-SIB buffers based on the BIS/FSB methodology is also planned for this year. The regulator, will also seek to move fully to the Basel III capital definition and capital requirements. Work is also underway to define the methodology to calculate operational risk and undertake internal capital adequacy assessment reviews (ICAAP) at individual and conglomerate level.



22. Colombian authorities' plans regarding capital definition and capital buffers are in line with international practice. The plan to implement the Basel III capital definition and Basel II Pillar capital buffers map well to many emerging market countries plans to move to Basel III. Building on

¹⁰ [Draft regulation - link](#).

¹¹ Hybrid instruments will have principal loss absorption through either (i) conversion to common shares with an objective pre-specified trigger point or (ii) a write-down mechanism which allocates losses to the instrument at a pre-specified trigger point of at least 4.5 percent under both scenarios.

the capital enhanced measures implemented in 2012, the plan would give a strong signal of additional loss-absorbency of the Colombian banking system. Indeed, the considerably higher proportion of Tier 1 capital (and common equity) required in the 8 percent minimum under Basel III, together with the new CCB and CCyB buffers, represents a substantial enhancement to capital compared to Basel II. Given that Colombia currently routinely applies capital requirements above the 8 percent, it could migrate to Basel III directly rebasing existing requirements on the framework minima. Banks that operate across jurisdictions would particularly welcome such a development because it would allow them to submit their ICAAP assessments on a standardized basis. In addition, a move to Basel III capital requirement would be particularly beneficial for foreign banks based in Colombia because it would bring them in line with regulatory treatment in advanced economies that have progressed further and faster towards Basel III, thereby avoiding dual reporting requirements.

23. In terms of sequencing, the Basel III capital definition could indeed be prioritized ahead of defining Pillar 2, Basel III and D-SIB buffers. This would improve the effectiveness of buffers and avoid the trouble of narrowing the definition of eligible capital later. The implementation of a CCyB should be unproblematic for banks given that there is already a countercyclical provision requirement in place. Moreover, the move to RBS will be supported by the Integral Supervisory Framework (MIS) which currently allows the SFC to assess the soundness of capital robustness and liquidity of individual banks and conglomerates. Market consultation and sufficiently long lead times, would communicate and ensure a smooth transition path for Colombian banks, and could be accompanied by quantitative studies revealing the impact of Basel III implementation.

F. Conclusion

24. Colombia has made substantial progress in strengthening capital buffers since the FSAP. An enhanced capital measure was introduced in August 2012 that has narrowed the scope of assets which qualify as capital (eliminating committed and intangible assets) while recognizing voluntary reserves and profits and bolstering the consolidated solvency ratio. However, while the new Colombian capital regulation better defines Tier 1 capital, it still includes a broader recognition of Tier 2 (subordinated debt) as capital and is not as strict in terms of deduction of future intangibles and goodwill from base capital calculations relative to Basel III capital standards. Indeed, while above the regulatory minima, Colombian capital is below the levels of some Latin American peers after adjusting for quality. However, Colombia has important mitigating factors which include strict, forward-looking, loan-loss provisioning, robust asset quality, and low non-performing loans which suggest that at the current juncture loss-absorbency is not a concern.

25. Notwithstanding the progress, the new capital measure could be further strengthened. The growth of financial and mixed conglomerates in Colombia and their cross-border expansion may have increased concentration, and amplified intra-group and cross-border country risk, stressing the need for further increasing capital buffers. Additional loss absorbency for Colombian banks and conglomerates could be granted by adopting a capital definition closer to the Basel III standard and providing the SFC with powers to impose above minimum capital requirements, when deemed necessary, in the form of various buffers, such as Pillar 2 buffers and Basel III buffers (CCyb

and CCB) and D-SIB buffers. Proposals are already in place to announce a timeline for the formal transition to Basel III standards, and regulation introducing Basel II Pillar 2 was recently made available for public comments, while other reforms to build banks resilience are also ongoing including advancement with risk based supervision (see Chapter 7). Some additional reforms to strengthen banks' resilience could include using forward-looking multi-year macro stress tests and macroprudential tools to address solvency and systemic risks; extending supervisory powers over financial holding companies of financial conglomerates and allowing imposition of capital at consolidated conglomerate level as well as at solo level; agreeing on common scope of supervision to minimize regulatory arbitrage across Central America; and prioritizing other Basel III measures on liquidity and leverage after strengthening the capital stack.

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