

VIVIAN NORAMBUENA, Ph.D.

EDUCATION

GEORGETOWN UNIVERSITY, WASHINGTON, DC

- Doctor of Philosophy, Economics | Earned on March 2015
- Master in Economics (MA) | December 2009

PONTIFICIA UNIVERSIDAD CATÓLICA DE CHILE, SANTIAGO, CHILE

- Master in Macroeconomics (MA) | July 2005
- Diploma: Specialist on Applied Macroeconomics and Financial Programming | December 2004
- Bachelor of Arts, Economics and Business Administration (with honors) | December 2003

HONORS AND AWARDS

- Full four-year Fulbright scholarship (PhD)
- Graduate school scholarship, Georgetown University (PhD) | 2009-2013
- Top ranked student in graduating class (BA) | 2004
- Full five-year scholarship, Pontificia Universidad Católica de Chile (BA) | 1999-2003
- President of the Republic Scholarship, Chile | 1994-2005

PROFESSIONAL EXPERIENCE

WORLD BANK GROUP, WASHINGTON, DC

Senior Advisor to the Board of Executive Directors

| November 2018-to present

Advisor to the Board of Executive Directors

| August-October 2018

- Representative of Chile to the Board of Executive Directors at the World Bank Group
- Senior Advisor to Executive Director for Argentina, Bolivia, Chile, Paraguay, Peru and Uruguay
- Senior Advisor to the Government of Chile regarding World Bank engagement
- Provides analysis and recommendations to the Board for a wide array of World Bank Group projects (cross sector, cross country) with emphasis in topics such as macroeconomics, climate, gender, fiscal and debt sustainability in Africa, MENA and Latin America.
- Senior advisor to ED for the International Finance Corporation (IFC): IFC projects worldwide, IFC Strategy, Performance Standards, Budget, HR, Financial Statements, and IFC's Asset Management Company (AMC)
- Specific focus on Committee on Development Effectiveness (CODE): Governance of IFC and MIGA Office of the Compliance Advisor/Ombudsman (CAO) and Review of the World Bank Inspection Panel (IPN) to continue to operate effectively under the new Environmental and Social Framework (ESF). Audit Committee: financial strategy, financial statements, risk management and internal audit
- Revision of World Bank publications and important analytical pieces (WDRs, GEPs, Human Capital Project, Joint IMF-WB Multipronged Approach for Addressing Emerging Debt Vulnerabilities, etc.)
- Collaborates with the *Coalition of Finance Ministers for Climate Action*, which was launched at the 2019 Spring Meetings and is co-led by Finland and Chile. Conducts discussions with the World Bank, in its role of the Coalition's secretariat, and with representatives of different governments to strengthen international collaboration and climate action. The Coalition has grown from 20 to 51 countries
- Negotiated the creation of a new World Bank Research Center in Chile with a focus on the financial sector and its contribution to foster growth across the economy for a more prosperous and equitable society.
- Leads the ED Advisors Group on Climate Action at the Board (jointly with representatives Germany and UK)
- Collaborates with the ED Working Group on Gender at the Board
- Experience organizing high level events with the World Bank during Spring and Annual meetings bringing together Ministers of Finance, high-level representatives and senior officials of international organizations, academia and the private sector.

UNIVERSIDAD DE CHILE, SANTIAGO, CHILE

Assistant Professor--Department of Economics

| July 2015- to present (on-leave)

- Research and teaching fields: Macroeconomics and Applied Econometrics
- Member of the committee of the Comprehensive Final Examinations on Macroeconomics
- Experience organizing technical meetings, seminars and workshops
- Member of the Editorial Board of the academic journal “Estudios de Economía”
- Adviser to the Director of the Department of Economics

STATE UNIVERSITY OF NEW YORK, NY, USA

Visiting Scholar—Department of Economics

| July 2018

- Research project: “International Benchmarking for Country Diagnostics”
- Proposed the analytical foundations of international comparisons or “benchmarking” for the purpose of assessing a country’s capacity and preparation for social and economic development

WORLD BANK GROUP, KUALA LUMPUR, MALAYSIA

Visiting Scholar--Development Research Group

| October-November 2017

- Research project: “*International Benchmarking for Country Diagnostics*”, co-author Norman Loayza
- Designed a new strategy for country international benchmarking
- Implemented a comprehensive illustration of international comparisons in terms of economic growth, poverty reduction and resilience (or risk management).

INTERNATIONAL MONETARY FUND, WASHINGTON, DC

Visiting Scholar--Strategy, Policy & Review Department (SPR)

| August 2015-May 2016

- Reviewed the Debt Sustainability Framework (DSF) in five broad aspects: (i) forecast of main economic indicators and projection horizon; (ii) set-up of the stress tests; (iii) the econometric model underlying the DSF; (iv) the identification of debt thresholds; (v) countries’ risk assessment
- Discussed which aspects of the MAC DSA could be integrated into the LIC DSF. In particular, how a “Probability threshold approach” may improve a country specific risk assessment.
- Explored the question: Is the probability approach useful in determining a definitive risk rating? Addressed this question by comparing the risk ratings from the probability approach with the risk ratings from the mechanical application of a threshold approach. This was done for 216 DSAs undertaken during 2012-2016.
- Wrote a Stata code to compute country-specific probabilities of future debt distress using the DSF econometric model and the country’s DSA data. Probabilities of debt distress were computed under three scenarios: Historical, Baseline and most extreme shock.
- Wrote a Stata code to compute country-specific debt thresholds using the coefficients from the DSF and each country’s average CPIA and GDP growth.
- Compared country-specific debt thresholds with the DSF debt thresholds (which use the sample average of the GDP growth for 1970-2007 and the CPIA cutoffs) to explore the following: (i) assess the cases where the DSF might understates or overstates risk; (ii) evaluate if there is an important distortion generated by the inclusion of the CPIA cutoffs instead of the actual CPIA score; (iii) assess the relevance of the time period used to compute the country’s average of the GDP growth.
- Evaluated the accuracy of public debt and debt service projections in the DSA.
- Implemented exercises to explore whether a shorter projection horizon could improve forecasts accuracy.

WORLD BANK GROUP, WASHINGTON, DC

Consultant--Research Group (DEC), Macro & Growth unit

| 2012-2014, May 2015-July 2018

- Research on exchange rate undervaluation, economic growth, consumption risk sharing, and financial crises
- Performed econometric analysis to measure the degree to which countries diversify their idiosyncratic risks in developing and developed countries (using Gauss and Matlab)
- Studied and estimated the link between financial globalization and consumption risk sharing
- Studied the effect of a policy of exchange rate undervaluation on exports and output growth.
- Collected and analyzed a panel data on GDP, exports, real exchange rate, productivity, labor, human capital, financial and trade openness and a set of indicators of political risk and quality of institutions; for 187 countries, covering the period 1960-2010 (using Stata)
- Evaluated different channels through which a real exchange rate undervaluation could stimulate exports, productivity (TFP) and output growth
- Created different indices to account for the rest of the world undervaluation ("currency wars")
- Estimated a set of equations for GDP per capita, TFP and exports including the own undervaluation of each country and the different measures of currency wars, together with other country specific variables

AMERICAN UNIVERSITY OF BEIRUT

Researcher-- Institute of Financial Economics

| May-October 2015

- Collaborates in the project "Transition from autocracy to democracy in the Arab World", supported by the International Development Research Centre (IDRC)
- Provided the econometrics analysis for the book: "Democratic Transitions in the Arab World"

WORLD BANK GROUP, WASHINGTON, DC

Consultant-- Macroeconomics & Fiscal Management Department

| January 2015- July 2015

- Collaborated on the World Bank-IMF Board paper: "LICs' Debt Vulnerabilities: the Evolving Landscape"
- Analyzed historical and recent debt-related developments in Low Income Countries (LICs)
- Studied major shifts in the financing opportunities available to LICs and the associated debt management

WORLD BANK GROUP, WASHINGTON, DC

Consultant--Africa Regional Office, Office of the Chief Economist

| 2014-2015

- Wrote a paper on debt sustainability in Sub-Saharan Africa (SSA) with Leonardo Hernandez and William Battaile
- Debt sustainability analysis across different SSA countries to assess potential vulnerabilities arising from the country's levels of debt and its financing profile; including the simulations of different macro-fiscal shocks.

INTERNATIONAL MONETARY FUND, WASHINGTON, DC

Visiting Scholar--Strategy, Policy & Review Department

| November-December 2013

- Assessed and reviewed the new debt sustainability analysis for market access countries
- Evaluated the accuracy of all internal calculations and the soundness of the assumed economic relationships in terms of: (i) the realism of baseline assumptions of growth, primary balance, inflation and fiscal consolidation; (ii) the vulnerabilities arising from the country's debt financing profile and; (iii) the sensitivity of debt burden indicators to macro-fiscal shocks
- Provided insightful findings to improve the framework
- Carried out a debt sustainability analysis for the United States and Chile; and prepared their respective reports

GEORGETOWN UNIVERSITY, WASHINGTON, DC

| Summer 2012

Instructor Professor, Department of Economics

- Econometrics (Econ-553), Master in Applied Economics
- Introduction to Econometrics (Econ-122), undergraduate level
- Received strong teaching evaluation from the students, scoring 4.86 out of 5 points

Teaching Assistant, Department of Economics

| Fall 2013

- Intermediate Macroeconomics

WORLD BANK GROUP, WASHINGTON, DC

Consultant--Economic Policy & Debt Department

| July-October 2011

- Reviewed and suggested improvements to the methodology used to calculate thresholds for external debt in LICs.
- Provided analytical research for the joint World Bank/IMF paper "[Revisiting the Debt Sustainability Framework for Low Income Countries](#)"

INTERNATIONAL MONETARY FUND, WASHINGTON, DC

Intern--Strategy, Policy & Review Department

| May-July 2011

- Work on revisiting the World Bank-IMF Debt Sustainability Framework (DSF)
- Provided analytical research to update and improve the Debt Sustainability Framework
- Presented a proposal with a set of refinements for the DSF in an internal seminar: "Designing indicative thresholds for external PPG debt"
- Re-estimated the debt thresholds with updated data and with a unified methodology, which were included in the joint World Bank/IMF paper "[Revisiting the Debt Sustainability Framework for Low Income Countries](#)"

WORLD BANK GROUP, WASHINGTON, DC

Intern--Economic Policy & Debt Department

| June-September 2010

- Studied, replicated and updated the model that underlies The Joint World Bank-IMF Debt Sustainability Framework for LICs
- Created data base covering debt distress and non-debt distress episodes for low and middle income countries, for the period 1970-2007
- Estimated different models for the determinants of debt distress episodes
- Reviewed the literature on debt distress events and the different econometric methodologies used in the literature
- Proposed improvements to the model that underlies the Joint World Bank-IMF DSF for LICs

CENTRAL BANK OF CHILE, SANTIAGO, CHILE

Economist--Macroeconomic Analysis Area, Research Division

| 2006-2008

- Responsible for analyzing, forecasting and presenting the evolution of the domestic macroeconomic conditions for the monthly monetary policy meeting
- Participated in the production of the quarterly Monetary Policy Report
- Developed a new set of economic indicators (coincidental, leading, monthly and quarterly)
- Produced a new model for forecasting by implementing a "Bridge Model" methodology, to obtain quarterly predictions on the basis of monthly indicators. This improved the analysis of private consumption and the accuracy of its projections.
- Presented the study on the new forecasting model and the new set of economic indicators to the board of the Central Bank of Chile. This study was established as the new framework to analyze the private consumption.

Financial Analyst--Department of Foreign Trade and Exchange Rate

| 2005-2006

- Designed tools to raise the quality of Foreign Portfolio Investment data to international standards
- Produced a document of the Development of Exchange Regulations in Chile from 1970-2006

Intern--Financial Policy Division

| December-February 2003

- Analyzed the Chilean private sector's risk exposure due to financial crisis in Argentina and Brazil
- The findings were input to the first Financial Stability Report

Intern--Department of Foreign Trade and Exchange

| December-February 2002

- Developed quantitative measures of the Chilean participation in the System of Arrangements for Reciprocal Payments and Loans of ALADI (Latin American Integration Association).
- Designed and implemented a mechanism for pre-paying the Central Bank's balance with the rest of the countries that had signed the agreement. This mechanism was implemented by the Central Bank of Chile.

PONTIFICIA UNIVERSIDAD CATÓLICA DE CHILE, SANTIAGO, CHILE

Lecturer, Department of Economics

| March 2006-December 2007

- Taught introductory courses on Economics for four semester. The size of the class was 90 students
- Systematically well-assessed by the students in the four courses taught.

UNIVERSIDAD DE LOS ANDES, SANTIAGO, CHILE

| July-December 2005

Lecturer and researcher

- Taught the course “Introduction to Economics”
- Carried out the research project “Analysis of the University Industry in Europe and the United States” with the Dean of the Department of Economics

PONTIFICIA UNIVERSIDAD CATÓLICA DE CHILE, SANTIAGO, CHILE

Teaching Assistant, Department of Economics

| 2002-2005

Graduate assistantships:

- Economic Growth Theory, Fall 2004
- Inter-American Program of Applied Macroeconomics, Fall 2004
Covered the following courses: National Accounts, Balance of Payments, Monetary Theory and Labor

Undergraduate assistantships:

- Macroeconomic I, Spring 2003, Spring 2005
- Macroeconomics II, Spring 2005
- Econometrics I, Spring 2003, Fall 2003
- Introduction to Microeconomics, Fall 2002
- Introduction to Economics, Spring 2002

RESEARCH AND WORKING PAPERS

- [“Sovereign debt default: are countries trapped by their own default history?”](#)
- [“Fiscal austerity and income inequality: who bears the costs?”](#)
- [“Debt sustainability in Sub-Saharan Africa: Unraveling country-specific risks”](#)
- “International Benchmarking for Country Diagnostics”, co-author Norman Loayza
- “Determining the price of copper in the inventories’ market: a short-term model”
- “Macroeconomic model for Chile: analysis and forecasts 2004-2017”

BRIEF NOTES ON POLICY RESEARCH

- “A Review of the Debt Sustainability Framework in Low Income Countries: A proposal on Aspects that Could be Improved”, Vivian Norambuena for the Strategy, Policy & Review Department, IMF. October 2015.
- “Accounting for the dynamic and country specific dimensions of debt risk: country-specific debt thresholds” Vivian Norambuena for the Strategy, Policy & Review Department, IMF. January 2016
- “Accuracy of projections in the DSA: Public sector debt and Debt service” Vivian Norambuena for the Strategy, Policy & Review Department, IMF. March 2016
- “World Bank-IMF Debt Sustainability Framework: Is the probability approach useful in determining a definitive risk rating?” Vivian Norambuena for the Strategy, Policy & Review Department, IMF. April 2016.

CONTRIBUTED RESEARCH PROJECTS

- Hevia, C.; Servén, Luis. 2016. [“Assessing the Degree of International Consumption Risk Sharing”](#)
- Hevia, C.; Servén, Luis. 2013. [“Partial Consumption Insurance and Financial Openness Across the World”](#)
- IMF-World Bank papers. 2012. [“Revisiting the Debt Sustainability Framework for Low Income Countries”](#)
- IMF-World Bank papers. 2015. [“Public Debt Vulnerabilities in Low-Income Countries: The Evolving Landscape”](#)
- Elbadawi, I.; Makdisi, Samir. 2017. [“Democratic Transitions in the Arab World”](#)

PRESENTATION IN SEMINARS AND CONFERENCES

- **Board of Executive Directors at the World Bank Group** | Sept 2019
“The Coalition of Finance Ministers for Climate Action: Action Plan and COP25”
- **Board of Executive Directors at the World Bank Group** | March 2019
“The Coalition of Finance Ministers for Climate Action: Why do they have a key role?”
- **International Association for Applied Econometrics, Montréal, Canada** | June 2018
“Fiscal austerity and income inequality: who bears the costs?”
- **SECHI 2016 Encuentro Anual, Viña del Mar, Chile** | Sept. 2016
“Sovereign debt default: are countries trapped by their own default history?”
- **IMF seminar, Strategy Policy and Review Department (SPR), Washington, DC** | April 2016
“Probability approach for debt sustainability analysis” SPR internal seminar
- **IMF seminar, Strategy Policy and Review Department (SPR), Washington, DC** | Oct. 2015
“Review of issues with the current Debt Sustainability Framework” SPR internal seminar
- **IMF seminar, Strategy Policy and Review Department (SPR), Washington, DC** | June 2015
“Debt Dynamics for Public and External Debt” SPR internal seminar
- **The Catholic University of America, Department of Economics seminar, Washington, DC** | March 2015
“Fiscal austerity and income inequality: who bears the costs?”
- **International Economic Association, 17th World Congress, Dead Sea, Jordan (grant awarded)** | June 2014
“Serial Defaulters: An Attempt to Account for the Unobservable”
- **National Bank of the Republic of Macedonia, 3rd Research conference, Skopje, Macedonia (invited)** | April 2014
“Serial Defaulters: An Attempt to Account for the Unobservable”
- **Georgetown Center for Economic Research's biennial conference, Washington, DC** | May 2013
“Serial defaulters: state dependence or unobserved heterogeneity?” PhD, Thesis
- **ICE-TEA Conference: “Debt Dynamics, Financial Instability and the Great Recession” Izmir, Turkey** | Nov. 2012
- **Georgetown University, Department of Economics seminar, Washington, DC** | Nov. 2011
“Debt intolerance in EMEs: does debt really matter?”
- **IMF seminar, Strategy Policy and Review Department (SPR), Washington, DC** | July 2011
“Designing indicative thresholds for external PPG debt” SPR internal seminar

PROFESSIONAL DEVELOPMENT COURSES ATTENDED

- **IMF Institute, Economics Training Program, Washington DC, USA** | June 2011
 - “High Debt and its Consequences” --Professor Carmen Reinhart
 - “Financial Crises” -- Professor Gary B. Gorton
- **Oxford University, Timberlake Consultants, Oxford, England** | July 2007
 - Econometric Training for Central Banks and Ministries of Finance
- **Central Bank of Chile, Santiago, Chile** | Nov. 2007
 - Evaluation of predictive capacity of econometric models

OTHER ACTIVITIES

- Member of the Selection Committee for the Fulbright Scholarship
- [Member of the public registry of experts for the reference copper price](#)
- [Member of the public registry of experts for the trend GDP](#)

COMPUTATIONAL SKILLS

Matlab, Gauss, Stata, EViews, Oxmetrics, LaTeX, Microsoft Office

LANGUAGES

English (Fluent), Spanish (Native)