

아시아경제 통일대박 두번째 포럼

# “통일, 국부펀드에 길을 묻다”

The role of SWF in an Era of Korean Unification

## PROGRAM BOOK

2014. 6. 26 (목) 14:00~17:00

국회의원회관 2층 제1소회의실

주 최 아시아경제  아시아경제  팍스TV

후 원  한국투자공사  
Korea Investment Corporation  국회 통일경제교실



최상주  
아시아경제신문 대표이사 회장

통일은 동시대 우리 모두의 과제입니다. 분단의 아픔을 이야기해 온지도 61년이 넘었지만 통일은 여전히 '염원'의 대상입니다. 이제는 '꿈을 현실로 바꿀' 구체적인 노력이 필요한 시점입니다.

무엇보다 통일 플랜의 초석이 될 자원마련이 시급합니다. 경제적 편익을 둘러싼 통일 논쟁은 앞으로도 계속되겠지만, 어느 쪽이든 적지 않은 재원이 필요한 만큼 자원마련을 위한 효과적인 방법론이 필요합니다.

이 역할을 국부펀드가 해줘야합니다. 투자 활성화를 위한 초기 마중물 역할입니다. 통일의 재원을 마련하는 방법은 크게 재정지출과 투자유치로 나눌 수 있습니다. 국부펀드는 좀 더 적극적인 방법인 투자유치의 선봉에 서야합니다. 25년전 서독 정부가 통일재원을 마련하기 위해 동독개발금융, 투자기구 등을 설립하고 외국인 투자유치에 나선 것과 같은 맥락입니다.

전 세계 국부펀드의 규모는 2013년 기준 6조달러에 달합니다.

2017년에는 13조달러를 넘어설 전망입니다. 국부펀드는 글로벌 자산 시장에서 연기금, 뮤추얼펀드, 보험에 이어 4번째로 큰 영향력을 가지고 있고 그 영향력은 지속적으로 확대될 것입니다. 여기에 한국투자공사를 비롯한 글로벌 국부펀드가 보유한 글로벌 운용사, 투자은행, 해외연기금 등의 네트워크 자산의 영향력을 더한다면 통일재원마련이 보다 수월해지리라 생각합니다.

오늘 아시아경제신문이 여의도 국회의원회관에서 '통일, 국부펀드에 길을 묻다'라는 주제로 두 번째 포럼을 개최하게 된 이유가 바로 여기에 있습니다. 활발한 논의를 위해 국부펀드 전문가와 글로벌 펀드 전문가분들이 발표와 토론을 맡아주셨습니다.

통일이라는 시대적 과제가 국부펀드에게 길을 묻습니다. '염원'을 실현할 구체적인 단서를 발견하고 공유할 수 있는 시간이 되기를 기대합니다.

아시아경제신문 대표이사

최상주 이시정



정 의 화  
국회의장

여러분, 반갑습니다.

정부와 각계에서 통일을 위한 다양한 준비가 한창인 가운데, 오늘 통일재원 마련을 위한 논의의 장을 갖게 된 것을 매우 뜻 깊게 생각합니다.

우리는 오랫동안 통일을 위해 많은 노력을 하고 있다고 생각해 왔습니다. 그러나 돌이켜 보면, 통일에 대한 우리의 생각은 다분히 관념적이었습니다. 통일은 고도로 전략적이고 복합적으로 대비해야 하는 참으로 지난한 과업입니다.

냉정하게 현실 속으로 들어가 볼 때, 통일에 따르는 막대한 경제적 부담에 대한 국민의 걱정은 매우 큼니다. 제가 기억하고 있는 한 조사에 의하면, 통일에 따르는 이익에 비해 비용이 더 클 것이라는 부정적 인식이 60%를 상회합니다. 따라서 우리는 두 가지 큰 문제를 풀어야 한다고 생각합니다.

첫째는 통일에 대한 확고한 국민적 공감대를 이루는 것입니다. 핵과 전쟁의 위험을 없애면 ‘분단비용’은 사라지고, 거시적으로 경제성장의 엄청난 힘을 우리에게 줄 것입니다. 나아가 통일대한민국은 인류 번영을 이끄는 평화국가로 나아감으로써 명실공히 세계중심국가로 올라서는 것입니다. 통일은 원대한 국가발전전략이자 우리가 동북아시아대의 주역이 될 수 있는 길입니다. 이에 대한 국민적 공감대가 확고해질 때 통일을 위한 동력은 극대화될 수 있을 것입니다.

둘째는, 북한지역의 기본적인 인프라 구축, 복지와 교육을 비롯한 서비스 제공 등을 위해서는 막대한 비용이 소요되지만, 우리는 이 비용을 국가 경제에 큰 충격을 주지 않고 조달할 수 있다는 확신을 국민들에게 주어야 합니다.

그리고 통일비용은 매몰되는 것이 아니라, 반드시 우리민족에게 더 큰 이익을 가져온다는 것을 국민이 이해하도록 해야 합니다.

오늘 포럼은 통일비용 마련을 위해 국부펀드를 활용하는 방안을 모색하는 자리로 알고 있습니다. 전 세계적으로 국부펀드 규모가 획기적으로 커지는 것을 볼 때, 우리도 이에 대한 대비를 해야 하고 그럼으로써 통일비용을 준비하는 데에 상당한 기여를 할 수 있다고 생각합니다. 물론 우리 국부펀드가 그 수준으로 올라가기 위해서는 전문 인력 양성과 해외 투자유치 등 풀어야 할 과제가 많은 것으로 알고 있습니다.

오늘 포럼을 통해 이런 문제들을 공론화하고 전향적으로 풀어갈 수 있는 계기를 마련해주시기를 기대합니다.

오늘 귀중한 자리를 마련하신 이세정 대표님을 비롯한 아시아경제신문 임직원과 함께 하신 내·외 귀빈 여러분께 감사드립니다.

국회의장 정 의 화



정희수  
국회 기획재정위원장

안녕하십니까?

국회 기획재정위원장 정희수입니다.

오늘 '통일, 국부펀드에 길을 묻다' 라는 주제로 개최되는 '아시아경제 통일대박 두 번째 포럼' 이 많은 내·외 귀빈여러분의 참여 속에 개최됨을 진심으로 뜻 깊게 생각하며, 바쁘신 일정에도 이처럼 귀중한 자리를 마련해주신 아시아경제신문 이세정 대표이사님을 비롯한 관계자 여러분들께도 심심한 감사의 말씀을 전합니다.

제가 알기로 오늘 포럼은 지난 5월 아시아경제신문에서 주최한 '2014 아시아금융포럼' 의 연장선으로, 아시아경제신문은 박근혜 대통령께서 말씀하신 '통일대박' 을 실현하고자 총 3회의 포럼을 계획한 것으로 알고 있습니다. 단발성 행사에 그치는 대부분의 포럼과 비교해 구체적인 진단과 실천 가능한 방안을 모색하기 위한 아시아경제신문의 노고에 다시 한번 감사드립니다.

통일은 이제 먼 미래의 이야기가 아닙니다. 통일의 길은 언제 어떻게 우리 앞에 펼쳐질지 모릅니다. 때문에 우리는 통일에 대한 국민적 불안감과 혼란을 최소화하고 통일효과를 극대화하기 위해 철저히 준비해 나가야 합니다. 우리가 통일을 어떻게 준비하느냐에 따라 통일은 미래의 선진강국 대한민국을 위한 희망의 기틀이 될 수도 있고 절망이 될 수도 있을 것입니다.

여러분들께서도 잘 아시는 바와 같이 통일을 위한 선결과제는 바로 '재원' 입니다. 한 연구기관은 통일이 되면 향후 10년간 최대 3,000조원이라는 어마어마한 비용이 들 것으로 전망하였습니다. 올해 초 한 여론조사결과에 따르면 통일과 관련해 세금을 더 낼 의향이 있다는 응답자가 63%나 되지만 조세부담을 국민에게 전가하는 일은 신중에 신중을 기해야 할 것입니다.

저는 오늘 논의되는 국부펀드가 통일한국을 위한 좋은 대안이 될 수 있다고 생각합니다. 특히 국부펀드는 예상하지 못한 갑작스러운 사태가 벌어졌을 때를 대비할 수 있다는 점에서 우리에게 더욱 매력적입니다.

향후 해외 주요 국부펀드들과의 대등한 운용규모와 전문성, 글로벌 네트워크 등의 역량을 조기에 확보해 세계 최고의 국부펀드로 발전시킨다면 다가올 한반도 통일과정에서도 적극적인 역할을 해낼 수 있으리라 기대합니다.

모쪼록 뜻 깊고 의미 있는 포럼 개최를 위해 수고해 주신 모든 분들께 다시 한번 감사의 말씀을 드리며, 앞으로 개최될 통일금융포럼에도 많은 관심 부탁드립니다. 저도 잊지 않고 챙겨보도록 하겠습니다. 끝으로 참석하신 모든 분들의 가정에 건강과 행복이 늘 충만하시길 바랍니다.

감사합니다.

국회 기획재정위원장 · 국회의원 정희수

시 간	구 분	내 용
13:30~14:00	등 록	등록, VIP 티타임
14:00~14:10	환영사	이세정 아시아경제신문 대표
14:10~14:30	축 사	정희수 기획재정위원회 위원장 김학용 새누리당 위원장
14:30~14:45	휴 식	장내정리 및 Break Time
14:45~15:15	기조연설	추흥식 한국투자공사 투자운용본부장(CIO)
15:15~16:45	<b>주제발표</b>	
		<b>국부펀드 투자 동향</b> Ph.D. Massimiliano Castelli (UBS Global Asset Management) - 국부펀드 현황 및 전 - 국부펀드 (인프라) 투자 사례 및 시사점
		<b>통독과 외국인 투자 유치</b> Wolfgang von Eckartsberg (Deutsche Bank) - 통독 사례 (통독 개발금융 및 투자기구 설립, 외국인투자 유치, 동서독 금융협력 사례 등)
		<b>토론</b>
		<b>통일재원과 국부펀드 투자 유치</b> 좌장 : 허재영 한국투자공사 대체운용실장 - 북한지역 인프라 공동투자 가능성 - 통일 후 북한 투자기회 및 선결사항 패널 : Ph.D. Massimiliano Castelli (UBS Global Asset Management) - 국부펀드 투자의 장단점 Wolfgang von Eckartsberg(Deutsche Bank) - 외국인투자 유치를 위한 환경조성 (투자보장 협정, 정부 보증 등 리스크 완화 조치) Eugene Sullivan (International Finance Corporation) - 국제금융기구 금융 지원 및 투자 프로그램 - 최근 저개발국가 투자 사례(투자 제한조치 해제 후 미얀마 사례 등)
16:45~17:00	폐 회 사	(정리)

Time	Category	Program
13:30 ~ 14:00	Registration	VIP Teatime
14:00 ~ 14:10	Welcome Remarks	Se-Jung Lee, CEO, Asia Business Daily
14:10 ~ 14:30	Welcoming Remarks	Hee-su Jung, Chairman of Strategy & Finance Committee Hack-yong Kim, Member of the National Assembly
14:30 ~ 14:45		(Break)
14:45 ~ 15:15	Keynote Speech	Hongchul Ahn, CEO, Korea Investment Corporation
15:15 ~ 16:45	<b>Presentation</b>	
		<b>SWF(Sovereign Wealth Fund) Trends Review</b> (Ph.D. Massimiliano Castelli, UBS Global Asset Management) - Global trends in SWF investments and outlook - Case study and implications (Infrastructure investment, etc.)
		<b>German Unification &amp; Foreign Investment</b> (Wolfgang von Eckartsberg, Deutsche Bank) - Case study: Unification of Germany - Development finance and establishment of investment organizations of Eastern Germany, East-West Cooperation in Finance
		<b>Panel Discussion</b>
		<b>Perspectives on Korean Unification</b> Moderator : Jay Huh, Head of AI, KIC - Co-investment Opportunities in N.Korea among SWFs (Infrastructure Investment, etc) Panelist : <b>Massimiliano Castelli, UBS Global Asset Management</b> - Pros & Cons of SWF Investment <b>Wolfgang von Eckartsberg, Deutsche Bank</b> - Favorable Climate of Foreign Investment - Investment promotion and protection agreement, Government backed risk management system <b>Eugene Sullivan, International Finance Corporation</b> - Financial Support and Investment Program of International financial organization - Latest Investment case study of underdeveloped countries - Lifting of Investment sanction of Myanmar and new investment environment - Investment Opportunities in N.Korea area after unification
16:45 ~ 17:00		(Closing)



**Heung Sik (HS) Choo, CFA**  
Chief Investment Officer  
Korea Investment Cooperation

Heungsik (HS) Choo was appointed Chief Investment Officer as of March 10, 2014. Previously, HS Choo was the head of the Reserve Management Group of the Bank of Korea from November 2011 until February 2014, responsible for the overall reserve management covering front, middle and back offices. Also, as a Deputy Governor level officer of the Bank, HS was a member of executive meeting of the Bank. Prior to that, HS held various positions in the RMG including CRO and CIO.

During over 30-year career at the Bank, HS experienced the exponential growth in Korean foreign reserves from U\$ 1 billion to over U\$ 300 billion, and played a leading role in the evolution of the reserves management framework, from cash management to portfolio management, and recently to asset liability management framework. During 2008 and 2009, HS Choo was seconded to the World Bank and served as a lead financial officer of the RAMP engagement with Asian central banks and SWFs to strengthen their asset management capacity.

HS earned his B.A. in Economics from Yonsei University and M.A. in Economics from Michigan State University. HS is a CFA charterholder.

UBS Global Asset Management, UBS

Years of financial industry experience: 13

Education: University of Rome (Italy), PhD; University of London (UK), MSc

Max joined Global Sovereign Markets in April 2011. As Head of Strategy he analyzes the market trends affecting the investment behavior of central banks, sovereign wealth funds and other state-controlled investment institutions and work closely with the investment teams in providing investment advice and developing tailored investment solutions for this client segment

Max established himself as a global thought leader on the macroeconomic, financial and political trends in sovereign wealth management. He has often been called in by leading institutions as an expert on global economic and financial matters. Max has recently published *The New Economics of Sovereign Wealth Funds* in the Wiley Finance Series, a book providing a thorough guide to sovereign wealth funds, covering the drivers of the industry, how it operates and grows, the interest from and in Western markets and the pivotal role that sovereign wealth funds play in the world economy

In his fifteen year long international professional career, Max has been Head of Governmental Affairs for UBS in Europe, Middle East and Africa, Senior Economist for the Middle East region at UBS and consultant advising governments and corporates in emerging markets on behalf of international institutions

Max holds a PhD in Economics from the University of Rome where he lectured and a Msc in Economics from the University of London.



**Massimiliano Castelli**  
Head of Strategy, Global  
Sovereign Markets,  
Managing Director





**Wolfgang von Eckartsberg**  
Legal advisor

**Actual professional status:**

retired from banking activities; member of supervisory board of a biotech-company (small-cap) and member of the foundation council of a pensions fund.

**History ( 2006 ~ 1948) :**

04 / 2006 - 03 / 1996

Deutsche Bank AG, Berlin Branch

Member of the Regional Board of Managing Directors

(Responsibilities : corporate banking ("large caps") and public sector ; corporate finance , real estate investment, trade & risk services, securities-trading, money - markets, foreign exchange, derivatives)

02 / 1996 - 07 / 1990

Deutsche Bank-Kreditbank AG and Deutsche Bank AG, Berlin Branch

(Responsibilities:Head of corporate finance (proj. finance and leasing for corporates and public sector )

07 / 1990 - 07 / 1988

Deutsche Bank AG, Madrid Branch Member of the Regional Board of Managing Directors

06 / 1988 - 07 / 1980

Deutsche Bank AG, Frankfurt am Main (HO)Corporate Finance (bond - issues and public offerings for clients from Latin-America and Iberian Peninsula); Head of Derivatives - Trading

06 / 1980 - 07 / 1978

Deutsche Bank AG, Duesseldorf Branch Traineeship

1978 Final State Examination (Law )

1973 First State Examination ( Law )

1968 School - leaving examination qualifying for university entrance

1968 - 1963 Living in Munich after emigration from Argentina

1963 - 1948 Living in Buenos Aires, Argentina

Berlin, 10th of May 2014

- 현재 IGV-GmbH 이사회 임원, Oskar Zahn-Stiftung 이사회 임원

- EX- Member of the Regional Board of Managing Directors, Deutsche Bank AG, Berlin Branch

Mr. Huh is a managing Director of Korea Investment Corporation and the Head of Private Equity Investment Team. As one of the founding investment managers at KIC since 2005, he was responsible for managing global public and private investment portfolios. From June 2010 to June 2013, he was a Director at the Private Markets Group based in New York and responsible for sourcing, due diligence, execution, and monitoring of alternative investments in North and Latin American region.

Prior to joining KIC, he was a Portfolio Manager at Kyobo Life Insurance Co. in Seoul, Korea and was responsible for managing of global credit investment portfolios. He also previously worked for Lehman Brothers, Credit Research Team in Tokyo, Japan as an Associate and for Samsung Corporation in Seoul.

Mr. Huh was awarded a Master of Business Administration (MBA) in Finance from The Robert Emmett McDonough School of Business, Georgetown University in Washington, D.C. He also holds a Bachelor of Arts degree in Japanese and Economics from Hankuk University of Foreign Studies in Seoul, Korea.



**Jea Y. HUH (JAY HUH)**  
Managing Director, Head of Private Equity Investment Team

아시아경제 통일대박 두번째 포럼

# “통일, 국부펀드에 길을 묻다”

기 조 연 설  
Keynote Speech

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“통일, 국부펀드에 길을 묻다”

Presentation 1.

**국부펀드 투자 동향**  
**SWF (Sovereign Wealth Fund) Trends Review**

- 국부펀드 현황 및 전망 Global trends in SWF investments and outlook
- 국부펀드 (인프라)투자 사례 및 시사점 Case study and implications (Infrastructure investment, etc.)

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**Ph.D. Massimiliano Castelli**, UBS Global Asset Management

## *Sovereign Wealth Fund Investment Trends*

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*UBS Global Asset Management*



Seoul  
June 26, 2014

### Table of contents

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Section 1	Sovereign Wealth Funds: Asset Allocation Peer comparison	2
Section 2	Sovereign Wealth Funds : Optimal Asset Allocation	13
Section 3	Sovereign Wealth Funds: Other Strategic Issues	23
Section 4	The role of SWF in an Era of Korea Unification	29
Appendix I	Biographies	44

Section 1

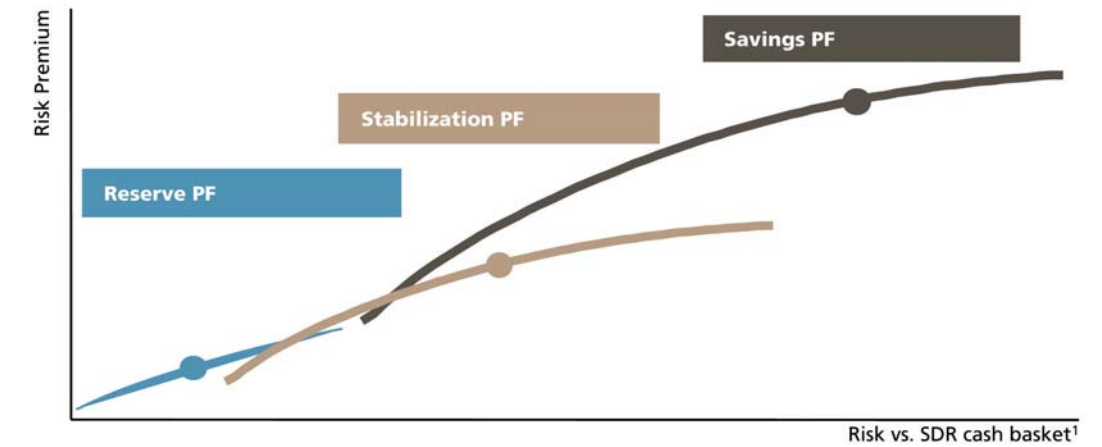
## Sovereign Wealth Funds: Asset Allocation Peer comparison



## Different Asset Allocation for different institutions

Selecting the most suitable SAA for each tranche. Efficient frontiers differ based on constraints of each type of portfolio.

### Efficient frontiers



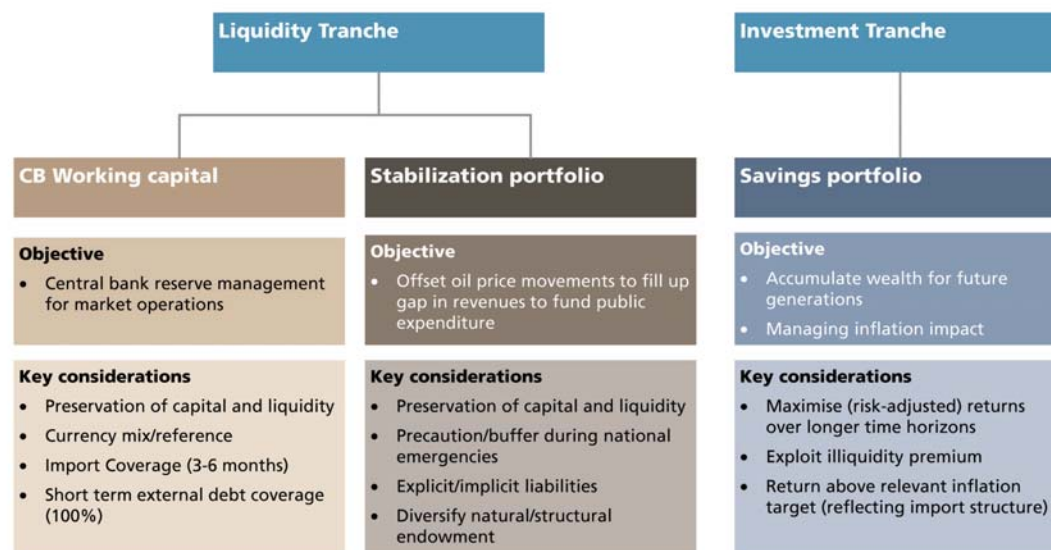
The following illustrative SAA analysis are measured against a currency basket similar to SDR



Source IMF. Note: For illustrative purposes only. Current SDR mix is USD 41.9%, EUR 37.4%, GBP 11.3%, JPY 9.4%.  
1 SDR: Special Drawing Right currency basket is used as a proxy for the central bank risk free asset. This differs for each central bank.

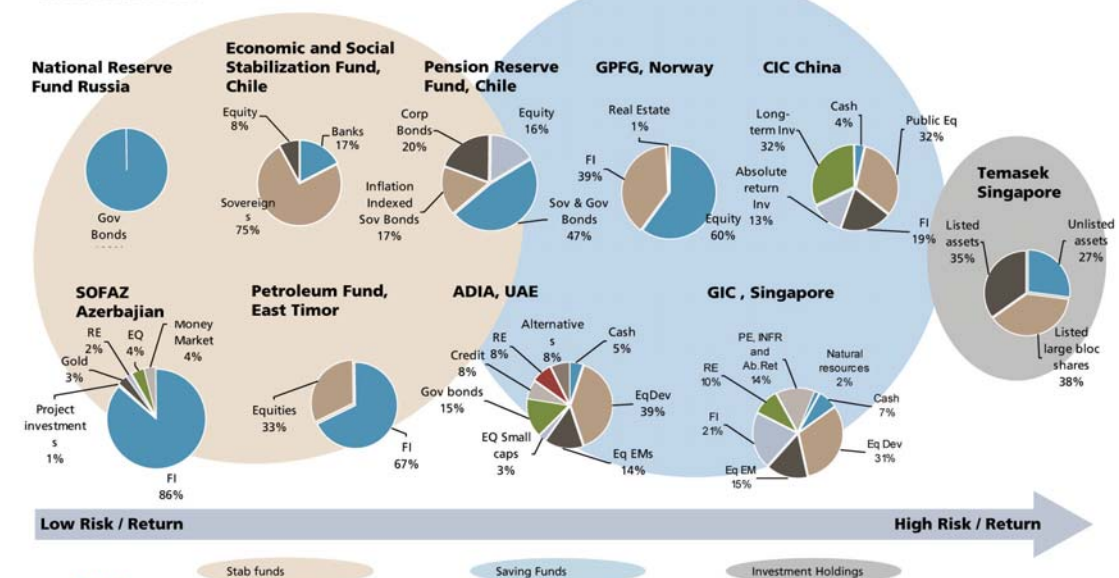
## Liquidity and Investment Tranche separation

Different portfolios with different goals



## SWFs are an heterogeneous group of institutions (1)

Reserve Managers/Stab Funds invest primarily in fixed income (and equity); saving funds invest across a wide range of asset classes including alternatives

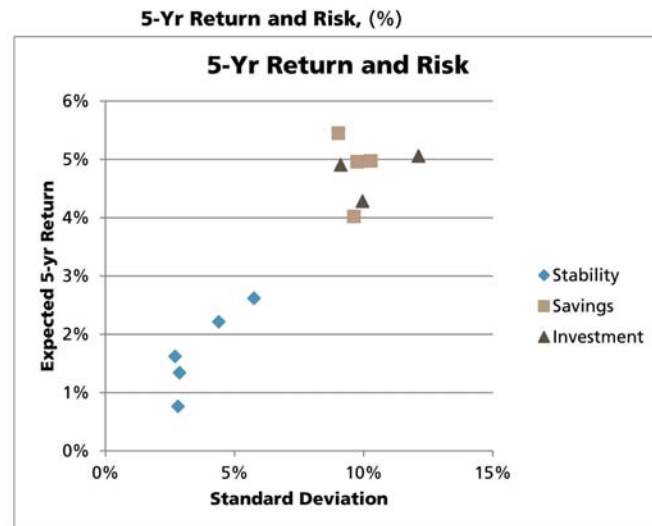


Source: SWFs Annual reports. As of January 2014



## Expected Returns across different institutions

An allocation to risky assets is required to beat inflation



Source: UBS Global AM and SWFs Annual Reports updated to Jan 2014  
 Stability Funds: Russia, Azerbaijan, Chile, East Timor  
 Saving Funds: ADIA, GPFG, GIC, CIC  
 Investment Funds: Temasek, New Zealand, Norway

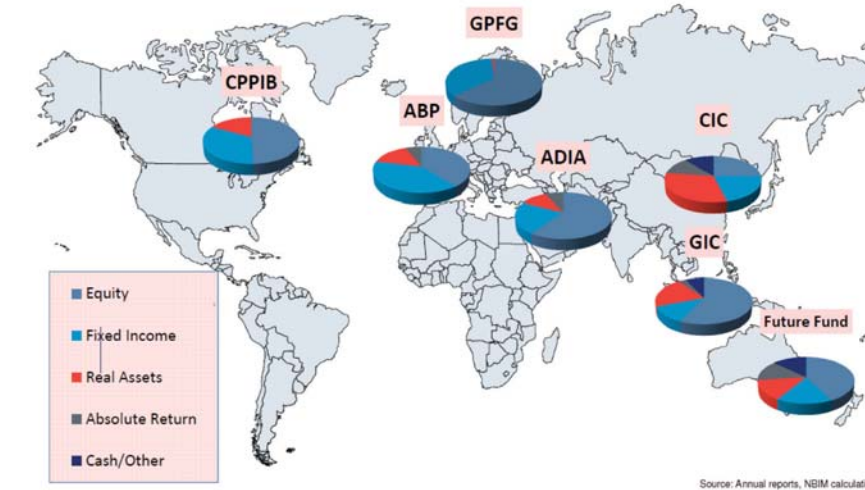


6

## Saving funds – Overview of asset allocations

The most common feature among saving funds is the relatively high share of alternative asset classes

Asset mix of selected, large funds  
 Data as of latest annual or quarterly reports



Source: Annual reports, NBIM calculations



Note: NBIM 2013

8

## SWFs are an heterogeneous group of institutions (2)

Expected returns likely to be lower than in the past

	Russia	SOFAZ Azer	Chile Stab	Chile East Timor	Chile Pension	ADIA	GPFG	GIC	CIC	Temasek	Norway	New Zealand
Cash	0.0%	4.0%	0.0%	0.0%	0.0%	5.0%	0.0%	7.0%	4.0%	0.0%	0.0%	0.0%
Short Bonds	50.0%	43.0%	75.0%	34.0%	24.0%	8.0%	20.0%	11.0%	10.0%	0.0%	0.0%	10.0%
Global Bonds	50.0%	43.0%	0.0%	33.0%	40.0%	7.0%	19.0%	10.0%	9.0%	25.0%	35.0%	5.0%
Corporate Bonds	0.0%	0.0%	17.0%	0.0%	20.0%	8.0%	0.0%	0.0%	0.0%	10.0%	0.0%	5.0%
EMD-Custom	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Global Equity	0.0%	4.0%	8.0%	33.0%	16.0%	56.0%	60.0%	46.0%	32.0%	38.0%	60.0%	75.0%
Convertibles	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
CNY Gov Bonds	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Direct Real Estate	0.0%	2.0%	0.0%	0.0%	0.0%	8.0%	1.0%	10.0%	11.0%	8.0%	5.0%	5.0%
Private Equity	0.0%	1.0%	0.0%	0.0%	0.0%	3.0%	0.0%	7.0%	11.0%	8.0%	0.0%	0.0%
Infrastructure	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	4.0%	10.0%	3.0%	0.0%	0.0%
Hedge Funds	0.0%	0.0%	0.0%	0.0%	0.0%	3.0%	0.0%	5.0%	13.0%	8.0%	0.0%	0.0%
Gold	0.0%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
5-Year Geometric Return	0.8%	1.3%	1.6%	2.6%	2.2%	5.0%	4.0%	5.0%	5.4%	4.9%	4.3%	5.1%
5-Year Arithmetic Return	0.8%	1.4%	1.7%	2.8%	2.3%	5.5%	4.5%	5.4%	5.8%	5.3%	4.8%	5.7%
5-Year Standard Deviation	2.81%	2.87%	2.70%	5.75%	4.39%	10.28%	9.63%	9.76%	9.02%	9.11%	9.95%	12.13%
5-Year Return/Risk	0.28	0.48	0.61	0.48	0.53	0.53	0.46	0.55	0.65	0.58	0.48	0.47
Equilibrium Geometric Return	4.9%	5.1%	5.2%	6.0%	5.7%	7.1%	6.8%	7.0%	7.2%	7.1%	6.9%	7.2%
Equilibrium Arithmetic Return	5.0%	5.2%	5.3%	6.2%	5.8%	7.5%	7.2%	7.5%	7.6%	7.5%	7.4%	7.9%
Equilibrium Standard Deviation	2.81%	2.86%	2.70%	5.75%	4.38%	10.27%	9.63%	9.76%	9.02%	9.11%	9.95%	12.13%
Equilibrium Return/Risk	1.77	1.80	1.96	1.08	1.31	0.73	0.75	0.77	0.84	0.82	0.74	0.65
Duration	3.4	2.9	2.1	2.2	3.6	0.9	1.3	0.7	0.6	1.9	1.8	0.7
Equity Beta	0.03	0.09	0.12	0.35	0.21	0.66	0.62	0.62	0.56	0.57	0.63	0.78
Liquidity	1.8	1.9	1.8	2.0	2.1	2.7	2.2	2.9	3.4	3.1	2.5	2.5

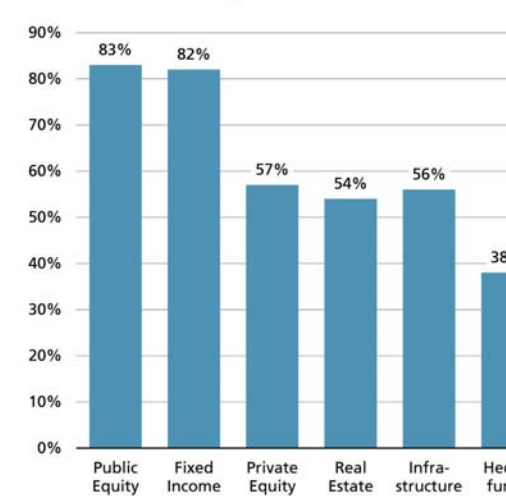


7

## Taking advantage of the illiquidity premium

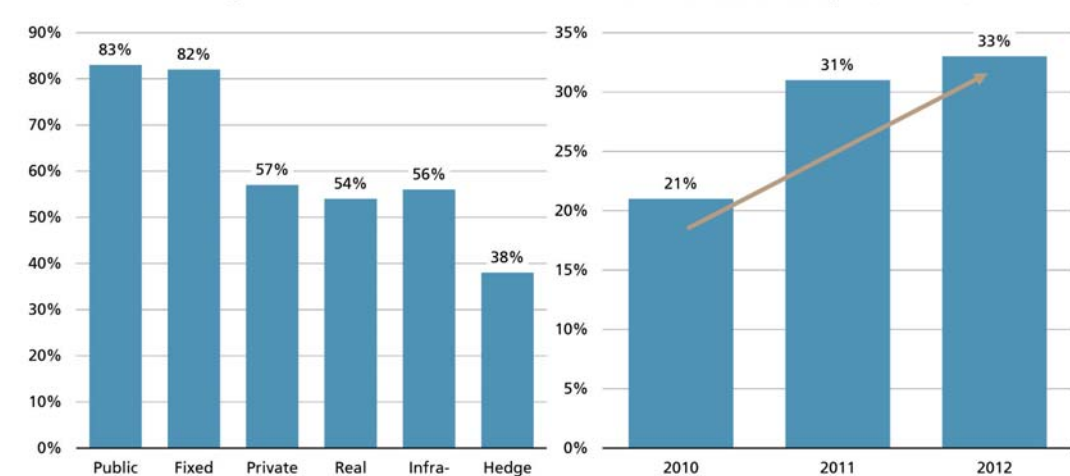
Alternatives are attracting a growing share of assets managed by SWFs

% of SWFs investing in asset classes (2012)



Source: Prequin

CIC, Asset allocation changes (2010 – 12)



Source: Annual reports, Various years

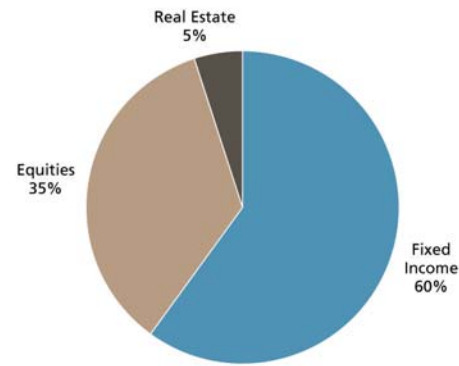


9

## The Norway model

Give the growth in AuM the investment framework currently under review: gradual move towards illiquid asset classes (RE)

### NBIM Asset Allocation (%)



### Key features

- Rely almost exclusively on publicly traded securities
- Constrained to a low tracking error
- Little deviation from policy portfolio
- Majority of assets internally managed
- Low use of alternatives
- Nominal return since inception (1998): 5.05%

Note: NBIM 2013

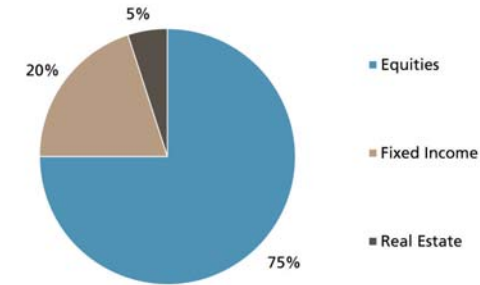


10

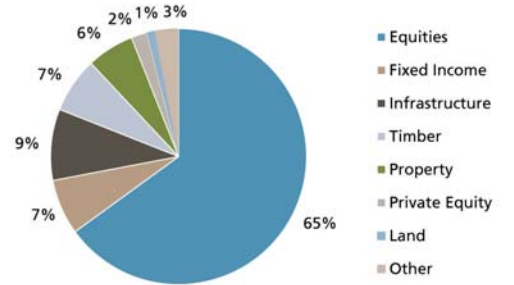
## The Kiwi model

The New Zealand Superannuation Fund has been a start performer over the last few years

### Reference Portfolio Asset Allocation (%)



### Pre-tilt Asset Allocation (2012)



Source: New Zealand Superannuation Fund, Annual report 2011-12

### Key features

- Low cost for market exposure
- Ability to deviate from reference portfolio
- More concentrated investments
- Nominal return since inception: 7.05% (value added of 0.51%)



12

## The Endowment model

Move towards illiquid asset classes (RE)

### GIC Asset Allocation (%)

	2007	2008	2009	2010	2011	2012	2013
Equity	44%	38%	51%	49%	45%	45%	46%
Fixed Income	26%	24%	20%	22%	17%	17%	21%
Real Estate	10%	12%	9%	10%	10%	10%	10%
Private Equity	8%	11%	10%	10%	11%	11%	11%
Hedge Funds / AR	3%	3%	3%	3%	3%	3%	3%
Commodities	2%	4%	3%	3%	3%	3%	2%
Cash	7%	8%	4%	3%	11%	11%	7%
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

### Key features

- High allocation to alternatives
- Large reliance on external managers
- Exploit market mispricing
- Nominal return 20 years: 6.5%

Note: GIC Annual report



11

## Section 2

## Sovereign Wealth Funds: Optimal Asset Allocation





## Determining the Strategic Asset Allocation (SAA)

### Key considerations when setting the SAA – distinct for each tranche/portfolio

#### Risk, liquidity and constraints

- What is the risk tolerance? How do you perceive/define risk? Maximum drawdown tolerance?
- What are the key dynamics driving cash flows?
- Time horizon?
- Liquidity requirements?
- What are the restrictions on asset classes?
- What is the reference currency? Single currency or currency basket?

#### Expected returns

- What are the investment return expectation? Maximise as a function of risk above factors?

#### What is the appropriate mix of risk/return drivers?

- Currency
- Sovereign Duration
- Credit/Spreads (FI universe)
- Commodity
- Equity
- Liquidity (RE, PE, Infra)
- Active management: Security selection and manager selection, Currency, asset Allocation

### Define SAA for each of the tranches within an overall consistent framework



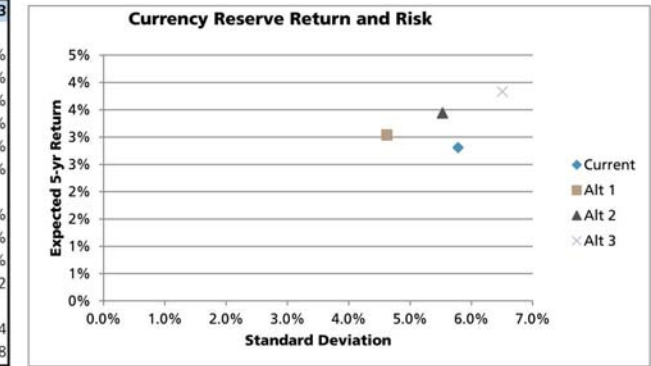
14

For illustration only – Case I

## FX Reserves: Alternative Asset Allocations

### Higher allocation to equity can lead to better risk-adjusted returns

Asset Allocation	Current	Alt 1	Alt 2	Alt 3
% Cash	17%	17%	17%	17%
% Fixed Income	47%	47%	40%	33%
% Equity	5%	15%	22%	29%
% Alternatives	7%	11%	11%	11%
% Other	25%	10%	10%	10%
Total	100%	100%	100%	100%
5-Yr Exp Return	2.8%	3.0%	3.4%	3.8%
Equil Geometric Expi	5.2%	5.6%	5.9%	6.1%
Equilibrium Risk	5.8%	4.6%	5.5%	6.5%
Reward/Risk	0.51	0.68	0.65	0.62
Duration	1.2	1.6	1.5	1.4
Equity Beta	0.15	0.24	0.31	0.38



Source: UBS Global Asset Management. As of April 2014



16

For illustration only – Case I

## Mean-Variance assumptions

Key assumptions: adjusted expected returns to reflect our Baseline scenario of low fixed income returns due to rising interest rates and mixed valuations in the equity market

	5-year Return Assumptions				Equilibrium Assumptions				Duration
	Geometric return	Arithmetic Return	Standard Deviation	Reward/Risk Ratio	Geometric return	Arithmetic Return	Standard Deviation	Reward/Risk Ratio	
Cash	1.0%	1.0%	0.5%	2.000	3.7%	3.7%	0.5%	7.40	0.1
Short Bonds	0.7%	0.7%	1.6%	0.443	4.8%	4.8%	1.06%	3.04	1.5
Global Bonds	0.8%	0.9%	4.1%	0.220	5.1%	5.1%	4.1%	1.26	5.2
Corporate Bonds	3.3%	3.5%	5.5%	0.627	5.7%	5.7%	5.5%	1.06	5.7
EMD-Custom	5.7%	6.2%	10.1%	0.612	7.9%	7.9%	10.1%	0.68	4.5
Global Equity	5.7%	6.8%	15.5%	0.438	7.6%	7.6%	15.5%	0.56	0.0
Convertibles	4.6%	4.9%	7.8%	0.628	6.3%	6.3%	7.8%	0.85	4.0
CNY Gov Bonds	5.5%	5.7%	6.0%	0.950	5.5%	5.5%	6.0%	0.95	4.4
Direct Real Estate	6.6%	7.1%	10.1%	0.703	6.6%	6.6%	10.1%	0.70	0.0
Private Equity	7.2%	10.5%	27.5%	0.382	9.3%	9.3%	27.5%	0.45	0.0
Infrastructure	6.0%	6.5%	11.0%	0.593	6.0%	6.0%	11.0%	0.59	0.0
Hedge Funds	6.5%	6.7%	5.8%	1.147	6.5%	6.5%	5.8%	1.15	0.0
Gold	2.3%	4.5%	22.0%	0.205	2.3%	2.3%	22.0%	0.20	0.0

Source: UBS Global Asset Management. As of April 2014



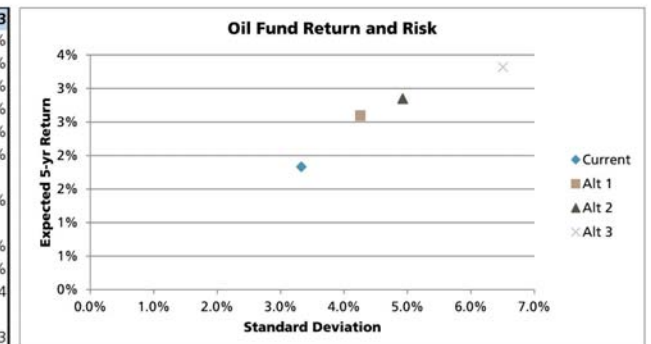
15

For illustration only – Case I

## SWF: Alternative Asset Allocations

### Increased diversification with or without alternatives (depending on risk appetite)

	Current	Alt 1	Alt 2	Alt 3
% Cash	25%	28%	28%	28%
% Fixed Income	58%	51%	45%	33%
% Equity	17%	18%	24%	24%
% Alternatives	0%	0%	0%	12%
% Other	0%	3%	3%	3%
Total	100%	100%	100%	100%
5-Yr Exp Return	1.8%	2.6%	2.8%	3.3%
Equil Geometric	5.2%	5.5%	5.6%	5.9%
Expected Return	3.3%	4.3%	4.9%	5.4%
Equilibrium Risk	0.57	0.63	0.60	0.64
Reward/Risk	1.9	2.3	1.9	1.3
Duration	0.19	0.24	0.30	0.34
Equity Beta				



Source: UBS Global Asset Management. As of April 2014



17

## Scenario Analysis

For illustration only – Case I

In addition to our baseline scenario, we consider 4 alternative scenarios including two with a substantial drop in oil prices

	5 yr Global Growth	5 yr Global Inflation	US 3 mth Tbill Ylds	US 10 yr Tr Yields	S&P P/E	Oil Prices
Scen 1: Base Case, Moderate rise in oil prices	2.8%	2.3%	0.08%	3.00%	17.3	105.0
Scen 2: Recession, Collapse in oil prices	1.6%	1.2%	0.08%	1.50%	12.0	55.0
Scen 3: Global Boom, Dramatic rise in oil prices	3.4%	2.5%	3.50%	5.00%	20.0	155.0
Scen 4: Moderate Growth, Collapse in oil prices	2.9%	2.3%	2.25%	4.25%	17.3	55.0
Scen 5: Stagflation, Moderate rise in oil prices	1.6%	3.5%	3.50%	5.00%	14.5	125.0

Asset Class Returns by Scenario	2 year returns					5 year returns				
	Base case	Recession	Boom	Mod Gro + Oil Bust	Stag-flation	Base case	Recession	Boom	Mod Gro + Oil Bust	Stag-flation
Cash	0.2%	0.1%	0.2%	0.2%	0.2%	1.0%	0.1%	1.2%	1.0%	1.3%
Short Bonds	0.5%	0.8%	0.3%	0.5%	0.3%	1.0%	0.8%	0.7%	0.9%	1.5%
Global Bonds	0.7%	2.7%	-0.3%	0.7%	0.4%	1.1%	1.9%	-0.1%	1.1%	0.8%
Corporate Bonds	2.0%	1.7%	4.8%	5.3%	5.3%	2.3%	3.7%	5.1%	5.4%	5.4%
EMD-Custom	5.5%	-1.3%	5.5%	5.5%	5.5%	5.5%	0.3%	5.5%	5.5%	5.5%
Global Equity	5.7%	-19.6%	12.5%	7.7%	2.9%	5.7%	-5.0%	11.9%	7.9%	3.9%
Convertibles	4.4%	-4.8%	7.6%	4.2%	3.4%	4.6%	1.6%	7.8%	4.4%	4.1%
CNY Gov Bonds	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%
Direct Real Estate	6.6%	-13.7%	12.0%	8.2%	4.3%	6.6%	-1.8%	11.5%	8.3%	5.2%
Private Equity	7.4%	-25.6%	16.3%	10.1%	3.8%	7.4%	-7.1%	15.5%	10.2%	5.1%
Infrastructure	6.0%	-21.6%	13.8%	8.5%	3.2%	6.0%	-5.7%	13.1%	8.7%	4.3%
Hedge Funds	6.4%	0.1%	8.1%	6.9%	5.7%	6.4%	4.0%	8.0%	7.0%	6.0%
Gold	2.3%	3.0%	0.8%	2.3%	5.8%	2.3%	2.4%	0.8%	2.3%	5.7%



Source: UBS Global Asset Management. As of April 2014

18

## Returns with different rate increase scenarios

For illustration only – Case II

### Key Results

- In order to show how diversification into equity provides better expected risk-adjusted returns we have included a portfolio with allocation to equity at 30%
- Under the baseline scenario (increase in interest rates of 75 bps over 3 years) the portfolio with equity at 20% leads to a more than doubling of expected returns; assuming US inflation at 2 per cent, this translates into moving real returns into positive territory, thus protecting the capital in real terms
- In terms of risk-adjusted returns (measured by the return/standard deviation ratio) the portfolio with equity at 20% is superior (0.52 versus 0.36), in other words provide higher returns for the same amount of risk
- Increasing allocation to equity at 30% leads to a tripling of expected returns in the baseline scenario; in risk-adjusted terms this portfolio is equivalent to the portfolio with equity at 20 per cent (broadly similar return/standard deviation ratio)
- Should interest rates rise faster than expected (i.e. 75 bps in one year), the current portfolio would provide negative returns (-0.6%); the portfolios with equity at 20% (or 30%) would provide positive returns thus preserving the capital
- Portfolios with equity at 20% or 30% protect capital also under more severe interest rate scenarios and returns turns negative only when interest rates increase very sharply (i.e. to 4.7% implying almost doubling from current levels)

Source: UBS Global Asset Management. As of April 2014



20

## Returns with different rate increase scenarios

For illustration only – Case II

Portfolios with equity provide better expected returns in the baseline scenario; this remains true in more severe interest rate rise scenarios

	Portfolio Fixed Income only			Portfolio Equity 20%			Portfolio Equity 30%		
	Total Portfolio	Fixed Income	Cash	Total Portfolio	Fixed Income	Cash	Total Portfolio	Fixed Income	Cash
<b>Percent Allocation</b>									
Glob Mortgage	26.0%	40.0%	0.0%	26.0%	40.0%	0.0%	26.0%	40.0%	0.0%
Glob Gov Bond	19.5%	30.0%	0.0%	19.5%	30.0%	0.0%	19.5%	30.0%	0.0%
Glob Corp Bond	13.0%	20.0%	0.0%	13.0%	20.0%	0.0%	13.0%	20.0%	0.0%
Quasi-Sov	3.9%	6.0%	0.0%	3.9%	6.0%	0.0%	3.9%	6.0%	0.0%
Emerging Makret Debt	1.3%	2.0%	0.0%	1.3%	2.0%	0.0%	1.3%	2.0%	0.0%
Other	1.3%	2.0%	0.0%	1.3%	2.0%	0.0%	1.3%	2.0%	0.0%
US Equities	0.0%	0.0%	0.0%	9.0%	0.0%	25.7%	13.5%	0.0%	38.6%
Non US Equities	0.0%	0.0%	0.0%	9.0%	0.0%	25.7%	13.5%	0.0%	38.6%
EM Equities	0.0%	0.0%	0.0%	2.0%	0.0%	5.7%	3.0%	0.0%	8.6%
Cash	35.0%	0.0%	100.0%	15.0%	0.0%	42.9%	5.0%	0.0%	14.3%
<b>Return/Risk Metrics</b>									
Expected Return (no change in interest rates)	1.7%	2.5%	0.1%	3.2%	2.5%	4.3%	3.9%	2.5%	6.4%
Expected Return Baseline (75bps rate increase in 3-yr)	1.1%	1.5%	0.3%	2.5%	1.5%	4.4%	3.2%	1.5%	6.5%
Std Deviation	3.0%	4.7%	0.5%	4.8%	4.7%	8.5%	6.1%	4.7%	12.3%
Equity Beta	0.06	0.09	0.00	0.26	0.09	0.57	0.36	0.09	0.85
Duration	3.2	4.8	0.0	3.2	4.8	0.0	3.2	4.8	0.0
<b>One Year Return at different interest rate levels (10y Treasuries)</b>									
2.7%	1.7%	2.5%	0.1%	3.2%	2.5%	4.3%	3.9%	2.5%	6.4%
3.0%	0.9%	1.3%	0.2%	2.4%	1.3%	4.4%	3.1%	1.3%	6.5%
3.2%	0.2%	0.1%	0.3%	1.6%	0.1%	4.4%	2.3%	0.1%	6.5%
3.5%	-0.6%	-1.1%	0.4%	0.9%	-1.1%	4.5%	1.6%	-1.1%	6.5%
3.7%	-1.3%	-2.3%	0.6%	0.1%	-2.3%	4.5%	0.8%	-2.3%	6.5%
4.7%	-4.3%	-7.2%	1.1%	-3.0%	-7.2%	4.7%	-2.3%	-7.2%	6.6%



\*Source: UBS Global Asset Management. As of April 2014

19

## Stress scenarios – Description and key metrics

For illustration only – Case II

We consider four different stress scenarios to assess the performance of different portfolio under extreme market conditions

1. All Markets Down	2. Credit Crisis	3. Stagflation shock	4. Interest Rate Shock
<b>Description</b> This scenario shows what happens when all asset classes decline in prices:  - Government yields rise 60 bps - Corporate spreads widen by 30 bps - Equity markets are down by 25%	<b>Description</b> A reenactment of the 2008-09 crisis:  - Government yields fall 120 bps as investors fly to quality - Corporate spreads widen by 90 bps - Equity markets are down by 40%	<b>Description</b> A sharp rise in inflation with consequent rise in nominal interest rates:  - Government yields rise by 120 bps - Corporate spreads widen by 30 bps - Equity markets down 20% - Cash yield rise	<b>Description</b> Similar to 1, but more losses in bonds and less in Equities (scenario consistent with a US debt crisis):  - Government yields rise 150 bps - Corporate spreads unchanged - Equity markets are down by 15%
<b>1 Year Returns</b> <ul style="list-style-type: none"> <li>Global Mortgages: -1.0%</li> <li>Global Gov bonds: -1.7%</li> <li>Global Corp bonds: -1.6%</li> <li>Quasi-Sov: -1.3%</li> <li>EMD: 0.3%</li> <li>Other: 3.0%</li> <li>US Equities: -25%</li> <li>Non-US Equities: -25%</li> <li>EM Equities: -25%</li> <li>Cash: 0.1%</li> </ul>	<b>1 Year Returns</b> <ul style="list-style-type: none"> <li>Global Mortgages: 3.9%</li> <li>Global Gov bonds: 8.2%</li> <li>Global Corp bonds: 5.1%</li> <li>Quasi-Sov: 7.7%</li> <li>EMD: 6.4%</li> <li>Other: 5.4%</li> <li>US Equities: -40%</li> <li>Non-US Equities: -40%</li> <li>EM Equities: -40%</li> <li>Cash: 0.1%</li> </ul>	<b>1 Year Returns</b> <ul style="list-style-type: none"> <li>Global Mortgages: -</li> <li>Global Gov bonds: -5.0%</li> <li>Global Corp bonds: -4.9%</li> <li>Quasi-Sov: -4.3%</li> <li>EMD: -2.6%</li> <li>Other: 1.8%</li> <li>US Equities: -20%</li> <li>Non-US Equities: -20%</li> <li>EM Equities: -20%</li> <li>Cash: 0.5%</li> </ul>	<b>1 Year Returns</b> <ul style="list-style-type: none"> <li>Global Mortgages: -3.4%</li> <li>Global Gov bonds: -6.7%</li> <li>Global Corp bonds: -4.9%</li> <li>Quasi-Sov: -4.3%</li> <li>EMD: -2.6%</li> <li>Other: 1.8%</li> <li>US Equities: -15%</li> <li>Non-US Equities: -15%</li> <li>EM Equities: -15%</li> <li>Cash: 0.5%</li> </ul>

Source: UBS Global Asset Management. As of April 2014



21



## Performance indicators under different stress scenarios

Over a two year period the max drawdowns on the diversified portfolios are relatively small under extreme stress scenarios

	Portfolio – Fixed Income only			Portfolio – Equity 20%			Portfolio – Equity 30%		
	Total Portfolio	Fixed Income	Cash	Total Portfolio	Fixed Income	Cash	Total Portfolio	Fixed Income	Cash
<b>Percent Allocation</b>									
Glob Mortgage	26.0%	40.0%	0.0%	26.0%	40.0%	0.0%	26.0%	40.0%	0.0%
Glob Gov Bond	19.5%	30.0%	0.0%	19.5%	30.0%	0.0%	19.5%	30.0%	0.0%
Glob Corp Bond	13.0%	20.0%	0.0%	13.0%	20.0%	0.0%	13.0%	20.0%	0.0%
Quasi-Sov	3.9%	6.0%	0.0%	3.9%	6.0%	0.0%	3.9%	6.0%	0.0%
Emerging Makret Debt	1.3%	2.0%	0.0%	1.3%	2.0%	0.0%	1.3%	2.0%	0.0%
Other	1.3%	2.0%	0.0%	1.3%	2.0%	0.0%	1.3%	2.0%	0.0%
US Equities	0.0%	0.0%	0.0%	9.0%	0.0%	25.7%	13.5%	0.0%	38.6%
Non US Equities	0.0%	0.0%	0.0%	9.0%	0.0%	25.7%	13.5%	0.0%	38.6%
EM Equities	0.0%	0.0%	0.0%	2.0%	0.0%	5.7%	3.0%	0.0%	8.6%
Cash	35.0%	0.0%	100.0%	15.0%	0.0%	42.9%	5.0%	0.0%	14.3%
<b>Stress Scenarios - 1 Yr Time Horizon</b>									
1. All Markets down	-0.8%	-1.2%	0.1%	-5.8%	-1.2%	-14.2%	-8.3%	-1.2%	-21.4%
2. Credit Crisis	3.8%	5.7%	0.1%	-4.2%	5.7%	-22.8%	-8.3%	5.7%	-34.3%
3. Stagflation shock	-2.5%	-4.1%	0.5%	-6.6%	-4.1%	-11.2%	-8.7%	-4.1%	-17.1%
4. Intrest Rate Shock	-2.9%	-4.7%	0.5%	-6.0%	-4.7%	-8.4%	-7.5%	-4.7%	-12.8%
<b>Stress scenarios - 2 Yr Annualized Returns</b>									
1. All Markets down	0.7%	1.0%	0.1%	-1.2%	1.0%	-5.4%	-2.1%	1.0%	-8.5%
2. Credit Crisis	2.5%	3.8%	0.1%	-0.8%	3.8%	-10.3%	-2.6%	3.8%	-16.4%
3. Stagflation shock	0.2%	-0.2%	0.7%	-1.4%	-0.2%	-3.6%	-2.1%	-0.2%	-6.0%
4. Intrest Rate Shock	0.0%	-0.4%	0.7%	-1.0%	-0.4%	-2.0%	-1.5%	-0.4%	-3.6%



Source: UBS Global Asset Management. As of April 2014

## Sovereign wealth management is evolving

The shift to a separate SWF requires a very different set of skills and techniques

Sovereign Reserve and Investment Management Models					
1. Integrated management		2. Liquidity and Investment tranche separation		3. Separate Sovereign Investment Fund	
CB manages an integrated portfolio		CB manages separate portfolios		Sovereign Fund manages for future generations	
<b>Pros</b>	<b>Cons</b>	<b>Pros</b>	<b>Cons</b>	<b>Pros</b>	<b>Cons</b>
<ul style="list-style-type: none"> <li>Integrated investment policy</li> <li>Low operational costs</li> <li>High liquidity</li> <li>Political and operation control</li> <li>No need for major institutional changes</li> </ul>	<ul style="list-style-type: none"> <li>Conflicting investment goals</li> <li>Poor diversification gains</li> <li>No proper risk management</li> <li>Reputational risk</li> <li>No specialized expertise development</li> </ul>	<ul style="list-style-type: none"> <li>Better diversification</li> <li>Political and operation control</li> <li>Medium level liquidity</li> <li>No need for major institutional changes</li> </ul>	<ul style="list-style-type: none"> <li>Conflicting investment goals</li> <li>Diversification gains limited</li> <li>No proper risk management</li> <li>Reputational risk</li> <li>No specialized expertise development</li> </ul>	<ul style="list-style-type: none"> <li>Clear investment goal separation</li> <li>Shift to long-term investing</li> <li>Allow to better target illiquidity premium</li> <li>Develop specialized expertise</li> <li>Integrated risk management</li> <li>Direct investments</li> </ul>	<ul style="list-style-type: none"> <li>Higher operational costs</li> <li>Coordination needed and Potential institutions' conflicts</li> <li>Increased international visibility</li> <li>Legislative complexity</li> </ul>

Separating asset pools into buckets can increase transparency on liability profile, cash flow needs and risk tolerance



### Section 3

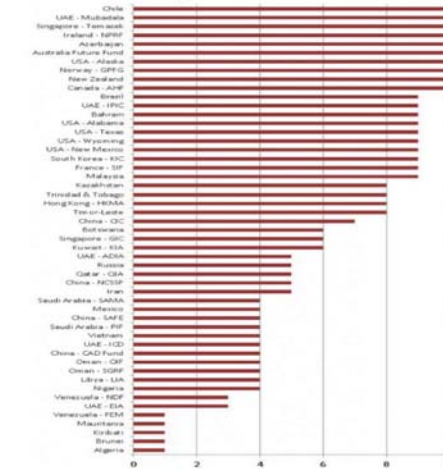
## Sovereign Wealth Funds: Strategic Issues



## SWFs' transparency has been rising over the last few years

Transparency has become a pre-requisite to raise the profile of a country vis a vis investors and creditors

Linburg-Maduell Transparency Index  
Q3 2013 LMTI ratings



Source: Sovereign Wealth Fund Institute

Implementation of Santiago Principles  
2013 Scoreboard

Group of SWFs	Average (%)	Change from 2007 (% points)
All SWFs	54	17
IFSWs Funds	65	21
2013 Survey Funds	71	22
Non-IFSW Funds	42	10

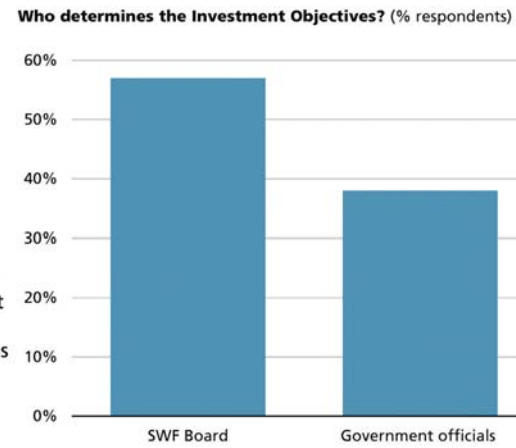
Source: Peterson Institute, 2013



## The relationship between the CB and the Ministry of Finance

A clear division of responsibility between the Ministry of Finance (MoF) and Central Bank is a key requirement for an effective asset allocation process

- About half of existing SWFs are established as separate legal entities from the state or from the central banks; in other cases, a separate pool of assets is created
- In the case of the pool of assets, they mostly fall under the control of the Ministry of Finance but their operational management is often under the responsibility of the central bank that has the required investment expertise
- It is not unusual that in the case of a pool of assets controlled by the MoF, the asset allocation does not adequately reflect the mandate and goals of the funds given too high risk aversion among politicians
- The MoF does not often have deep knowledge of financial markets to make the correct decisions on asset allocation; this requires educational efforts from the side of the manager



Source: Survey of SWFs carried out by the International Working Group of Sovereign Wealth Fund (IWG) with the support of the IMF, 2011



26

## Core beliefs of the capital markets have been challenged

New approaches are being pursued by the most innovative SWFs to adapt themselves to the new economic and financial realities

<b>Qualitative thinking</b>	<ul style="list-style-type: none"> <li>• Quantitative models failed in the financial crisis</li> <li>• The past cannot predict the future</li> <li>• Think outside the box</li> </ul>
<b>In-house Research Capabilities</b>	<ul style="list-style-type: none"> <li>• Economic research required to drive investments</li> <li>• Thematic investments (i.e. demographics, EMs, Food, Environment)</li> <li>• Country selection key for long-term investors</li> </ul>
<b>Risk management</b>	<ul style="list-style-type: none"> <li>• A robust risk framework for the whole investment process</li> <li>• Deal with all the different sources of risk</li> <li>• Effective technological platform (in-house or outsourced)</li> </ul>

Note: UBS Global Asset Management views

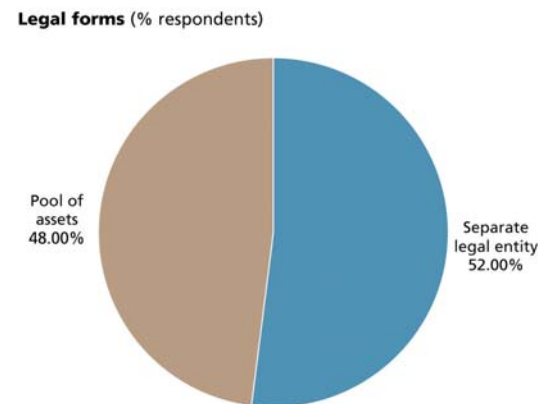


28

## The ability to attract talents

One of the key reasons behind the setting up of a SWF is the ability to attract and retain talents on the investment side

- Central banks are often constrained in terms of attracting talents due to inability to pay market-based salaries for specific skills; this is why countries with large FX reserves often opt for a separate institution
- That is why CBs often opt for external managers when moving into asset classes different from fixed income where they traditionally invest



Source: Survey of SWFs carried out by the International Working Group of Sovereign Wealth Fund (IWG) with the support of the IMF, 2011



27

### Section 4

## The role of SWF in an Era of Korea Unification





## Some macroeconomic considerations on the reunification

### When integrating a region with lower income per head several economic and financial issues should be considered

- **Historical precedents:** The two most notable examples are Germany following the integration of the Eastern part; but also from the dualistic nature of the Italian economy can be drawn some important lessons
- **One or Dual Currency ?:** The currency reunification in Germany (and the difficulties faced by Italy in raising the productivity in the South with one currency) suggests that a transition period with dual currency can be a better option as the North is likely to attract a larger share of investments from the South as a result of having a more competitive currency
- **Government versus private role:** A strong involvement of the public sector in social expenditure convergence can lead to dependency, inefficiencies and cronyism; this is the most visible failure of the massive fiscal transfers made to the Italian South by the central government in the post-war decades.
- **Immigration flows:** Reunification is likely to led to massive migrations from low income to high income regions. Immigration flows should be managed in order to minimize impact in the recipient countries and avoid a brain drain in the weakest regions
- **Political backlash:** The cost of reunification can be massive in terms of potential financial and fiscal transfers to the less developed regions (in Germany new taxes were introduced to finance reunification); after initial euphoria over the medium-to-long term a negative attitude could emerge in the richest regions
- **Income gaps:** History shows that substantially reducing income (and productivity) gaps can be extremely difficult; wage structure should reflect the productivity differentials in order to maintain competitiveness of the weakest regions *vis a vis* the most developed ones



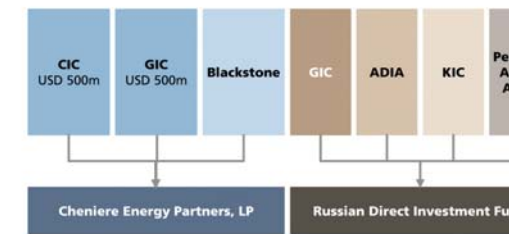
30

## SWFs are increasingly investing domestically

### Most recently established SWFs have multiple mandates: stabilisation, saving and economic development

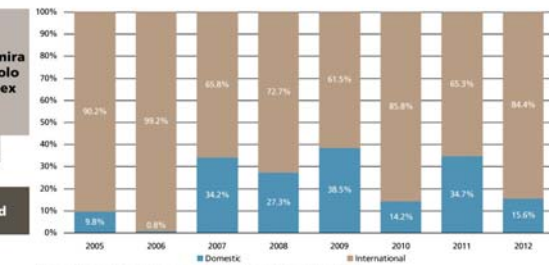
- The role played by existing or newly created SWFs in domestic markets has been rising driven by: a) the decreased availability of capital as banks restructure; b) the higher return on domestic investments
- The primary objective of SWFs is to diversify excess reserves internationally; including a domestic investment mandate can however lead to conflicting goals in terms of investment policy
- It is crucial that the domestic investments are clearly integrated (and adequately reflected) into the fiscal framework of the country in question

SWFs as a vehicle to attract investments



Source: UBS Global Asset Management

SWFs Investments, Domestic vs International, %



Source: Sovereign Investment Lab, Bocconi University, 2013



32

## The role of SWF in an Era of Korea Unification

### A fundamental strategic choice concerns which type of SWF should eventually be involved in the North following reunification

- **Investment types:** Investments in material infrastructure and investments in the corporate sector to drive industrial restructuring, better capital allocation and productivity gains are very different in nature and requires a different set of skills and capabilities
- **Which SWF?:** Sovereign Wealth Fund is a very heterogeneous group of institutions. Some are pure asset managers without any strong experience in direct investments; others are uniquely dedicated to strategic direct investments. However, there are notable exceptions of SWFs playing a dual role
- **Singapore's example:** In Singapore there are two separate SWFs with two distinct mandates: GIC has the responsibility to preserve and enhance FX reserves; Temasek is an active and shareholder investing across a wide range of industries including domestic ones. The case of Singapore is often considered as a best practice case
- **Foreign Investments:** The SWF dedicated to the reunification should play a key role in attracting foreign investments. The most obvious case is the infrastructure sector where opportunities are likely to be immediate and returns more attractive for foreign investors
- **Know how and human capital:** A SWF eventually playing a role in the reunification will need to have a different set of skills and capabilities from a traditional SWF investing into global markets. An appropriate HR policy should be put in place



31

## Appendix

### Biographies





## Massimiliano Castelli, PhD, MSC

Head of Strategy, Global Sovereign Markets  
Managing Director

Years of financial industry experience: 12

Education: University of Rome (Italy), PhD; University of London (UK), MSc

- Max joined Global Sovereign Markets in April 2011. As Head of Global Strategy he analyzes the market trends affecting the investment behavior of central banks, sovereign wealth funds and other state-controlled investment institutions and work closely with the investment teams in providing investment advice and developing tailored investment solutions for this client segment
- Max established himself as a global thought leader on the macroeconomic, financial and political trends in sovereign wealth management. He has often been called in by leading institutions as an expert on global economic and financial matters. Max has recently published *The New Economics of Sovereign Wealth Funds* in the Wiley Finance Series, a book providing a thorough guide to sovereign wealth funds, covering the drivers of the industry, how it operates and grows, the interest from and in Western markets and the pivotal role that sovereign wealth funds play in the world economy
- In his fifteen year long international professional career, Max has been Head of governmental affairs for UBS in Europe, Middle East and Africa, Senior Economist for the Middle East region at UBS and consultant advising governments and corporates in emerging markets on behalf of international institutions
- Max is a member of the Global Sovereign Market Management Committee
- Max holds a PhD in Economics from the University of Rome where he lectured and a Msc in Economics from the University of London.



34

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35

“통일, 국부펀드에 길을 묻다”

## Presentation 2.

### 통독과 외국인 투자 유치 German Unification & Foreign Investment

- 외국인투자 유치를 위한 환경조성(투자보장 협정, 정부 보증 등 리스크 완화 조치)  
Case study: Unification of Germany -Development finance and establishment of investment organizations of Eastern Germany, East-West Cooperation in Finance

Wolfgang von Eckartsberg, Deutsche Bank



**Summary of Statement of Wolfgang von Eckartsberg, Korea Unification Forum,  
Seoul, June 26**

**(1) General background on German unification / introduction**

- **Unification was a very sudden change of systems.** East Germany joined the Federal Republic in 1990. Unification meant that the total political, economic, legal and social system of the West-German Federal Republic was implemented in a very brief period in East Germany, too. This institutional transfer was almost complete. From day one, there was also full mobility of people, labour and capital, i.e. a single market. The corporate sector was privatized at a loss of some EUR 100 bn.
- **Business investment was hugely financed by subsidies of all sorts.** Also, in the first fifteen years, West Germany subsidized 80% of all private East German investment in equipment fully from the public purse. In addition, a long-term public infrastructure spending plan that is still being implemented until 2019 has been shuffling EUR 256 bn into East Germany's infrastructure. This amounts to some 8-10% of East German GDP per annum.
- **Unification costs at about four per cent of GDP.** Put in a narrow sense the total costs of unification are close to a permanent transfer into the East of some four percent of GDP of West Germany to support consumption and investment.
- **Living standards converged somewhat but a difference remains.** East German per-capita GDP – as the broadest measure of living standards - is EUR 23.000 or 67% of the average of West German states. Due to demographic factors, per capita income and wealth will continue to grow more slowly than in the Western part of the country which will lead to a gradual increase in regional disparities, again.
- **Public debt and wage contributions financed unification, not taxes.** The financing of unification took the form of taxes, social security contributions and debt. The Kohl government and its successors did not raise taxes to pay for unification but hiked contribution rates to social systems.
- **Banking moved from public mono banking to private banking.** The payment system, deposit and commercial banking and securities emissions were all handled by the state-owned bank of the GDR. It had a number of more specialized banks





subject to its full control exercising various banking businesses. Upon unification, all three sectors expanded into East Germany, with very different degrees of success.

**(2) Lessons.**

- (1) All initial estimates on the economic value of the East German capital stock were grossly false. Only three to four years after unification it became somewhat easier to identify a potential market value of activities and assets at all. Assume zero asset value and no competitiveness as a working assumption! In Germany, it was worse! Value was negative!
- (2) The total cost of transfers depends crucially on the political target level of the standard of living for the citizens joining five years after the unification shock. This again depends much on political circumstances.
- (3) It takes at least a decade to find out which economic activities might be viable in the long-term in the acceding region.
- (4) There are many pitfalls and problems one cannot properly anticipate. Some market segments might overreact or underperform due to an unusual amount of generalized uncertainty about the medium- to long-term viability of sector developments. The most difficult issue is housing investment and its regulation.
- (5) Given the huge amounts of investment needs, the availability of funds that can be drawn upon without significantly affecting the overall level of interest rates in the economy is a huge plus. The financing of German unification was ultimately too small to have a big impact on West German interest rates for more than a few years.

“통일, 국부펀드에 길을 묻다”

Panel Discussion

통일재원과 국부펀드 투자 유치  
Perspectives on Korean Unification

Moderator

허재영 한국투자공사 대체운용실장

- 북한지역 인프라 공동투자 가능성
- 통일 후 북한 투자기회 및 선결사항

Co-investment Opportunities in N.Korea among SWFs (Infrastructure Investment, etc)

Panelist

Ph.D. Massimiliano Castelli, UBS Global Asset Management

- 국부펀드 투자의 장단점
- Pros & Cons of SWF Investment)

Wolfgang von Eckartsberg, Deutsche Bank

- 외국인투자 유치를 위한 환경조성(투자보장 협정, 정부 보증 등 리스크 완화 조치)
- Favorable Climate of Foreign Investment (Investment promotion and protection agreement, Government backed risk management system)

Eugene Sullivan, International Finance Corporation

- 국제금융기구 금융 지원 및 투자 프로그램
- 최근 저개발국가 투자 사례(투자 제한조치 해제 후 미얀마 사례 등)

Financial Support and Investment Program of International financial organization  
Latest Investment case study of underdeveloped countries - Lifting of Investment sanction of Myanmar and new investment environment  
Investment Opportunities in N.Korea area after unification

**WE CAN END  
EXTREME  
POVERTY  
IN A GENERATION  
AND BOOST  
SHAPED  
PROSPERITY**

**THE POWER  
OF PARTNERSHIPS**

## Table of Contents

- IFC and the World Bank Group (Slides 3-6)
- Introduction to IFC (Slides 7-15)
- How IFC Creates Opportunity (Slides 16-21)
- IFC's Businesses, Results, and Reach (Slides 22-42)

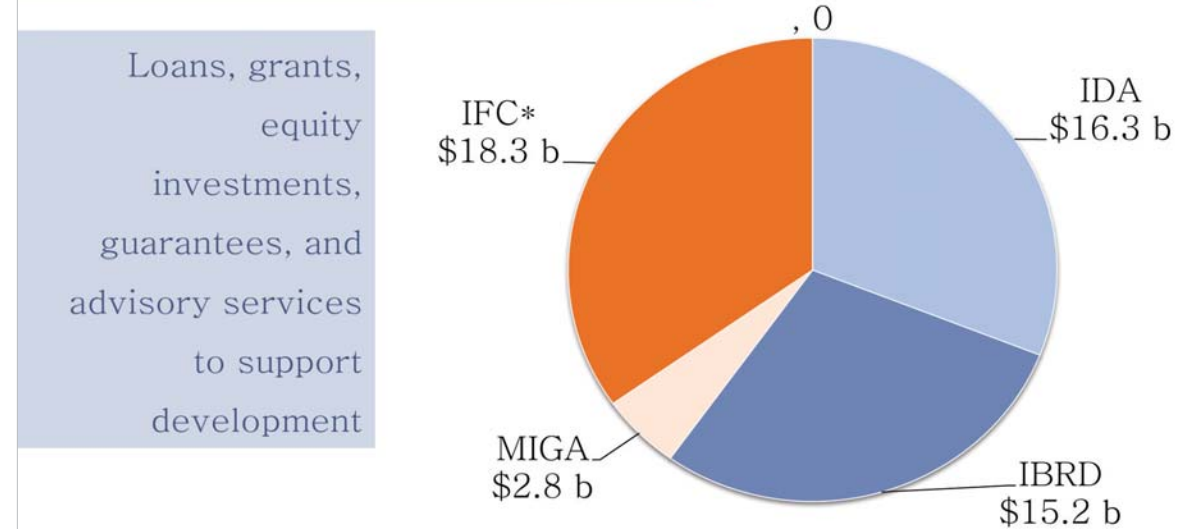


## IFC: Part of the World Bank Group



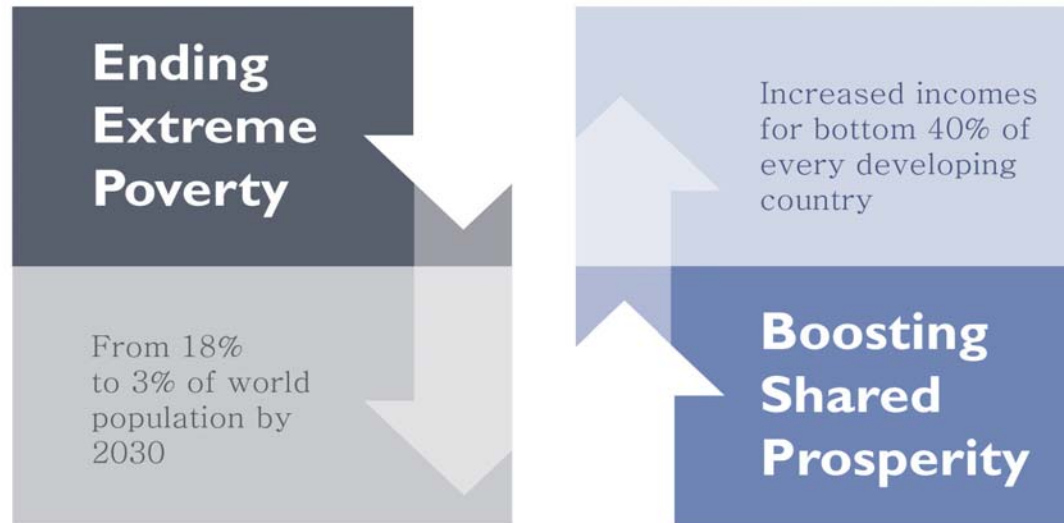
## World Bank Group Commitments, FY13

Total Commitments: \$52.6 Billion



\*Excluding mobilization (\$6.5b)

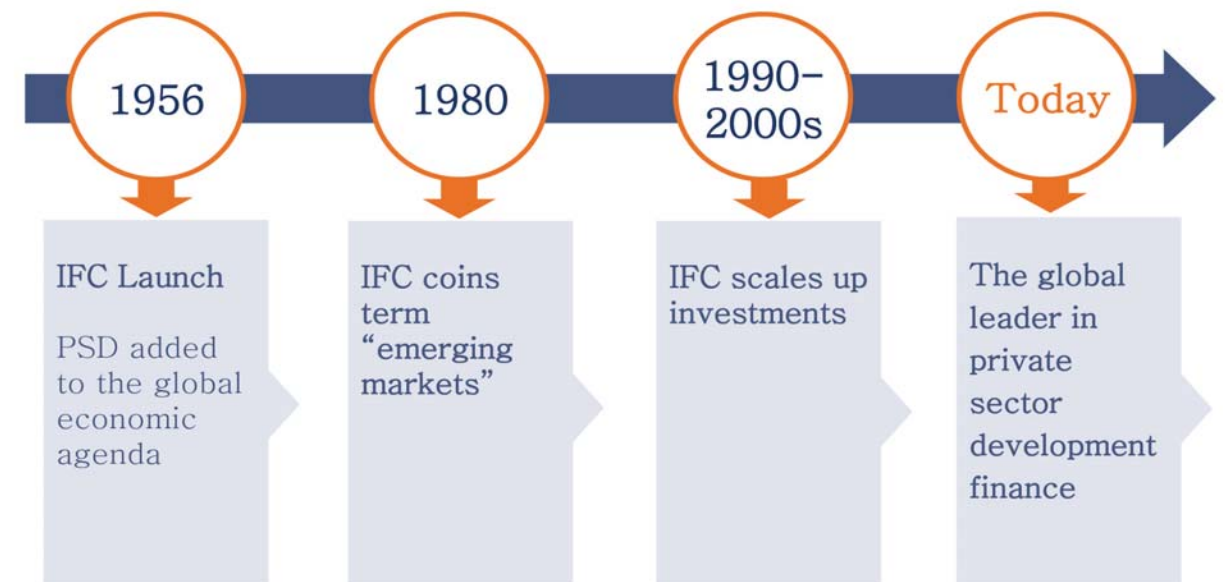
## Twin Goals of the World Bank Group



An Unprecedented Opportunity:  
Ending Extreme Poverty in One Generation

## IFC's History

A global institution, now owned by 184 member countries







## IFC's Vision

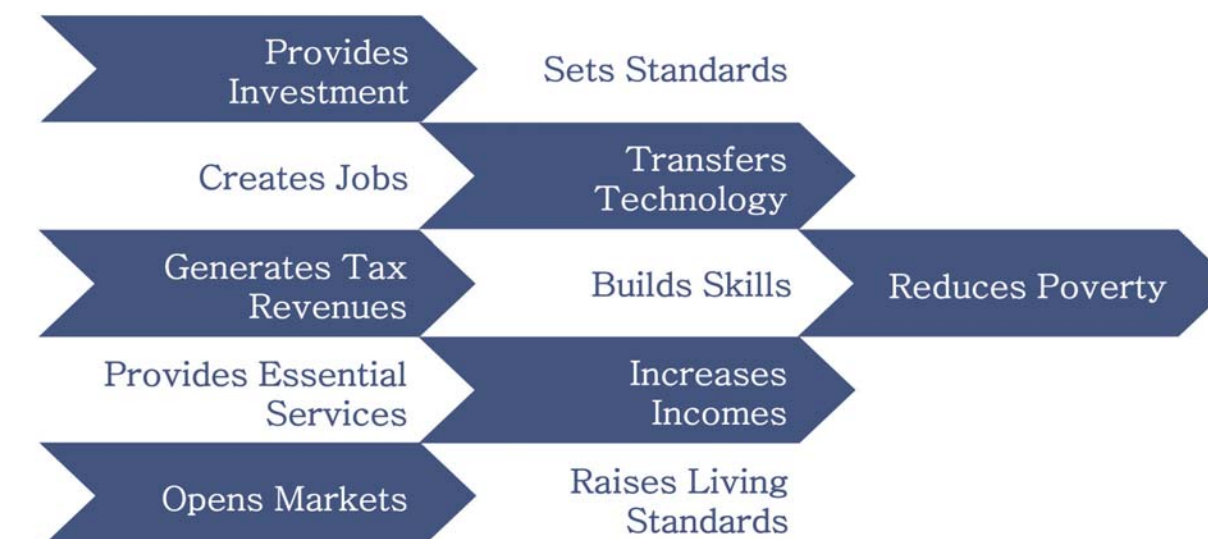
People should have the opportunity to escape poverty and improve their lives

**IFC** International Finance Corporation  
World Bank Group

7

## The Private Sector in Development

### A Force for Transformation



**IFC** International Finance Corporation  
World Bank Group

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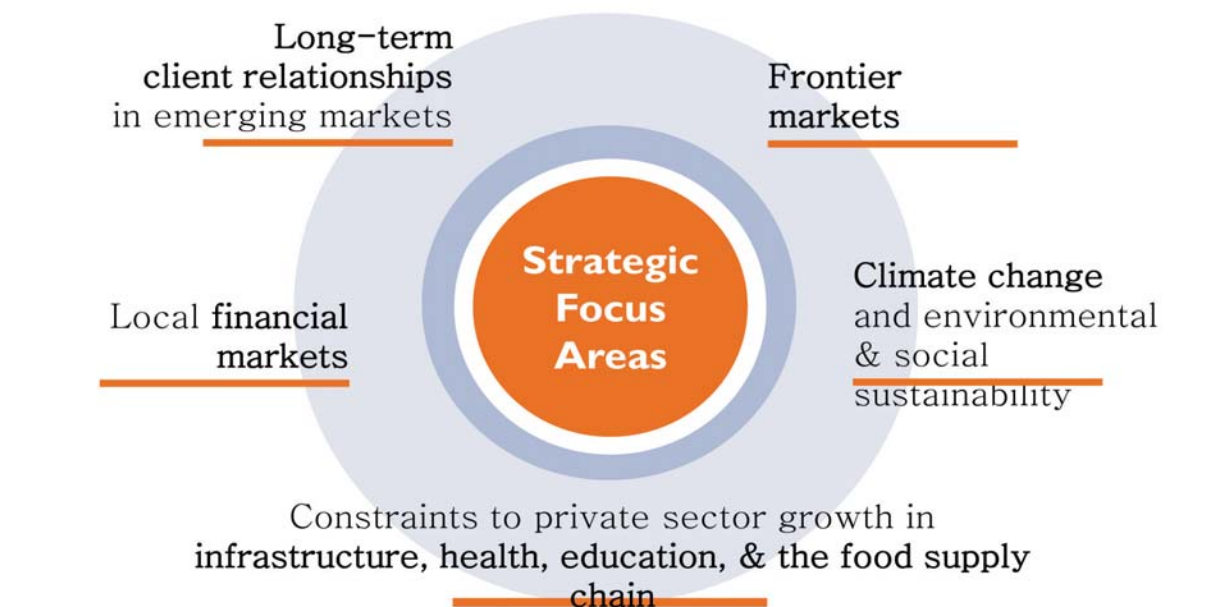
## IFC's Purpose

- To promote open and competitive markets in developing countries
- To help generate productive jobs and deliver essential services to the underserved
- To support companies and other private sector partners where there is a gap
- To catalyze and mobilize other sources of finance for private sector development

**IFC** International Finance Corporation  
World Bank Group

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## IFC's Priorities



**IFC** International Finance Corporation  
World Bank Group

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## IFC's Values

**excited**

- Excellence
- Commitment
- Integrity
- Teamwork
- Diversity

## IFC: A Valuable Partner

We help clients in good times and bad by offering:

- A strong financial position, strategy, staff
- Low leverage ratios, prudent risk management policies
- A long-term partnership perspective, providing clients important countercyclical financing when commercial banks cut back
- The expertise and experience needed to make a difference, focusing on innovative transactions where our development impact is the highest

## The Power of Partnerships



## What Clients Value About IFC



2013 IFC Client Survey



## Creating Opportunity Where It's Needed Most

### What IFC Delivers

#### IFC's Brand Value

- INNOVATION**  
Innovation in key areas
- INFLUENCE**  
Influence on policy
- DEMONSTRATION**  
Demonstration effect on others
- IMPACT**  
Impact on development

IFC  
Clients

#### IFC's Results

- BUSINESS RESULTS:**  
Profitability,  
Competitiveness,  
Client Satisfaction
- DEVELOPMENT  
IMPACT:** Helping the  
Private Sector **Reduce  
Poverty &  
Foster Inclusive Growth**

## How IFC Creates Opportunity

### Partnering for INFLUENCE

Nabil al Jabari, owner of a small grocery store, Egypt



- Shaping private sector development
- **Example:** G20's adviser on SME finance
- **Scaling Up Good Ideas:** Fawry, Egypt's largest e-payment system, expanding with a \$6 m IFC investment
- **Result:** Helping local entrepreneurs offer secure retail transactions

## How IFC Creates Opportunity

### Partnering for INNOVATION

- Linking governments, private sector, and civil society to help the poor
- **Hospital do Subúrbio**, Brazil's first health PPP, targeting low-income areas in Salvador, Bahia
- **IFC role:** helping structure the project, attracting \$32 m in private investment
- **Recognition:** named one of world's 100 most innovative urban infrastructure projects by KPMG

Hospital do Subúrbio, Brazil



## How IFC Creates Opportunity

### Partnering for DEMONSTRATION

- Setting a good example in challenging markets
- Making the business case, demonstrating rewards, creating jobs
- **South-South investments:** One key focus
- **Apollo Tyres (India):** Expanding production in South Africa with \$11 m in IFC investment

Apollo Tyres factory, South Africa





## How IFC Creates Opportunity

### Partnering for IMPACT

Computer lab at a Plato training center, Turkey



- Leveraging the private sector's role in development
- Promoting new models for others to follow: job creation, results measurement, standard setting
- Focusing on the poor, regardless of location: 2/3 live in middle-income countries
- Plato (Turkey): Bringing vocational education to Middle East and Central Asia with \$6 m IFC investment

## Our Three Businesses

### Integrated Solutions, Increased Impact

#### Investment Services

- Loans
- Equity
- Trade finance
- Syndications
- Securitized finance
- Risk management
- Blended finance

\$49.6 b portfolio (FY13)

#### Advisory Services

- Access to finance
- Investment Climate
- Sustainable Business
- Public-Private Partnerships

\$232 m (FY13)

#### IFC Asset Management Company

- Wholly owned subsidiary of IFC
- Private equity fund manager
- Invests third-party capital alongside IFC

\$5.5 b under mgmt (FY13)

## How IFC Creates Opportunity: IDA

### Partnering for THE POOREST

- The world's 82 poorest countries, supported by World Bank's International Development Association (IDA)
- Home to nearly half of IFC's projects each year
- Received \$6.6 b in IFC investment in fiscal 2013 (10X rise in 10 years)
- Kenya Tea Development Agency: Expanding jobs in a key export industry with \$12 m IFC investment

KTDA workers harvesting tea, Kenya



## Investment Services

#### Loans

- Project and corporate financing
- On-lending through intermediary institutions

#### Equity

- Direct equity investments (up to 20% of company's equity)
- Private equity funds

#### Trade Finance

- Guarantee of trade-related payment obligations of approved financial institutions

#### Syndications

- Capital mobilization to serve developmental needs
- Over 60 co-financiers: commercial banks, fund, and DFIs

#### Structured Finance

- Products including credit guarantees, liquidity facilities, portfolio risk transfer, securitizations, and Islamic finance

#### Risk Management

- Derivative products to hedge interest rate, currency, or commodity-price exposures of IFC clients

#### Blended Finance

- Combination of concessional funds with IFC resources to finance initiatives & achieve impact that would otherwise be unattainable



## Advisory Services

### Access to Finance

- Increases availability and affordability of financial services for individuals and micro, small, and medium enterprises

### Investment Climate

- Helps governments implement reforms that improve business environment and retain investments

### Public-Private Partnerships

- Helps governments design and implement PPPs in infrastructure and other basic public services (electricity, water, health and education)

### Sustainable Business

- Helps clients promote sound environmental, social, governance, and industry standards; catalyze investment in clean energy/resource efficiency; and support sustainable supply chains and community investment

## IFC's Global Reach

- 109 country and regional offices worldwide, AAA credit rating
- 4,015 staff (57% are based outside Washington DC)



## IFC Asset Management Company

### IFC Capitalization Fund

- Helps strengthen systemically important banks in emerging markets, bolstering their ability to cope with financial and economic downturns

### IFC African, Latin American, & Caribbean Fund

- Co-invests with IFC in equity and equity-related investments across a range of sectors in Sub-Saharan Africa, Latin America, and Caribbean

### Africa Capitalization Fund

- Invests in systemically important commercial banking institutions in Africa

### IFC Russian Bank Capitalization Fund

- Invests in commercial banking institutions in Russia

### IFC Catalyst Fund

- Invests in funds that provide growth capital to companies developing innovative ways to address climate change in emerging markets

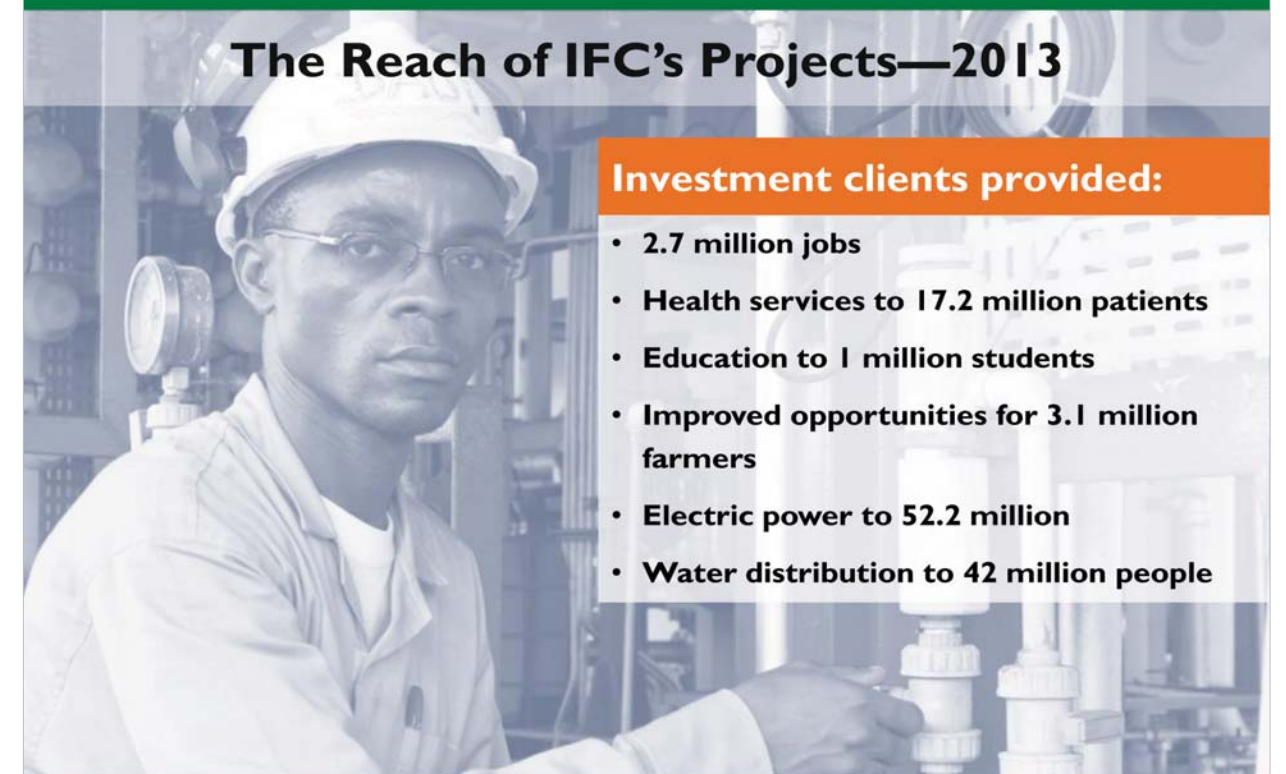
### IFC Global Infrastructure Fund

- Co-invests with IFC and equity-related investments in the infrastructure sector in emerging markets

## The Reach of IFC's Projects—2013

### Investment clients provided:

- 2.7 million jobs
- Health services to 17.2 million patients
- Education to 1 million students
- Improved opportunities for 3.1 million farmers
- Electric power to 52.2 million
- Water distribution to 42 million people





## Fiscal Year 2013 Highlights

**Investments:** 612 new projects in 113 countries

**Advisory services:** \$232 million in program expenditures

**\$24.8 billion in financing:** \$18.3 billion for IFC's own account, \$6.5 billion mobilized

**\$49.6 billion committed portfolio**

**IDA countries** account for almost half of IFC projects overall: \$3.5 billion invested in **Sub-Saharan Africa**



## FY13 Investment Commitments: \$24.8 Billion



## The Reach of IFC's Projects—2013

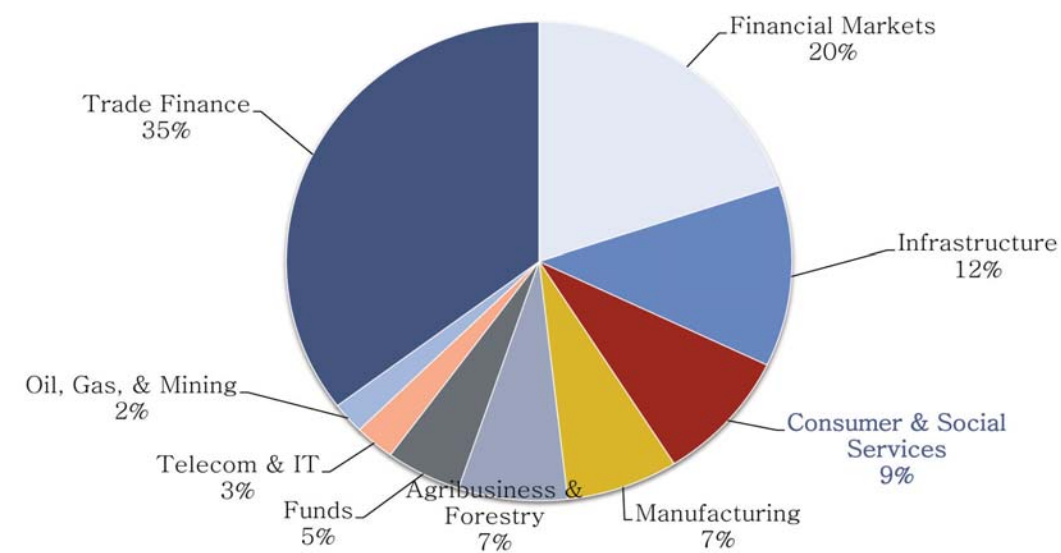
### Advisory Services helped:

- 43 governments implement 76 investment climate reforms
- governments design and implement 9 PPPs, to improve infrastructure & health services for 3 million people
- firms to avoid GHG emissions by 3.7 million tons annually
- train over 350,000 entrepreneurs, farmers & SME employees
- 149 financial intermediaries to provide \$103 billion micro and SME loans



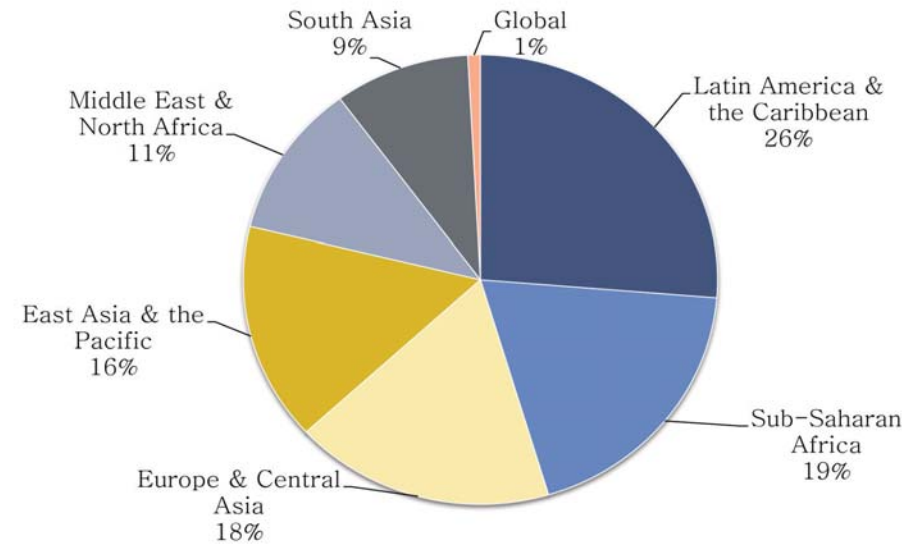
## Investments by Industry, FY13

Commitments for IFC's Account: \$18.3 Billion



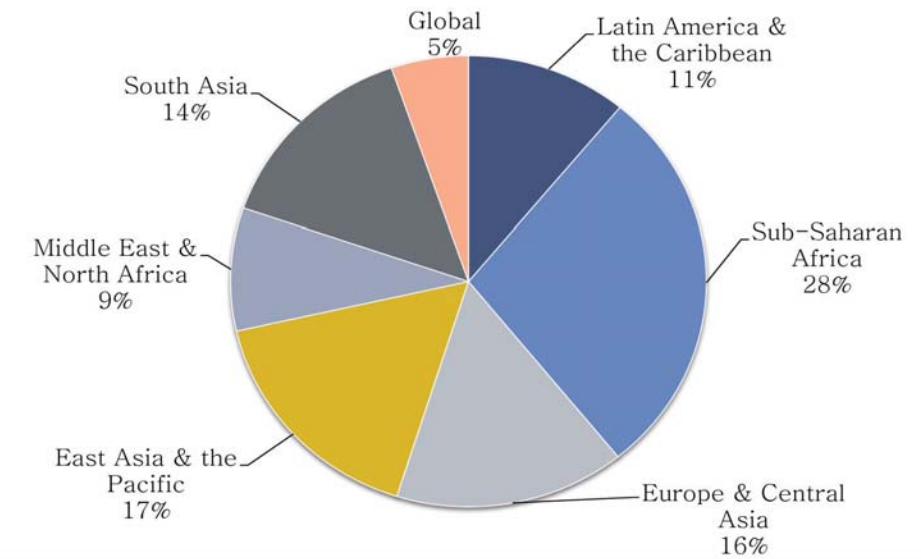
## Investments by Region, FY13

Commitments for IFC's Account: \$18.3 Billion



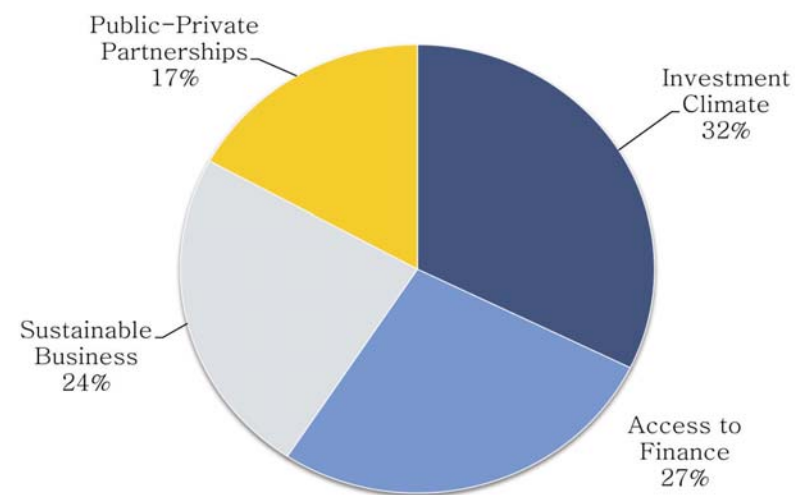
## Advisory Services by Region, FY13

Total Program Expenditures: \$231.9 Million



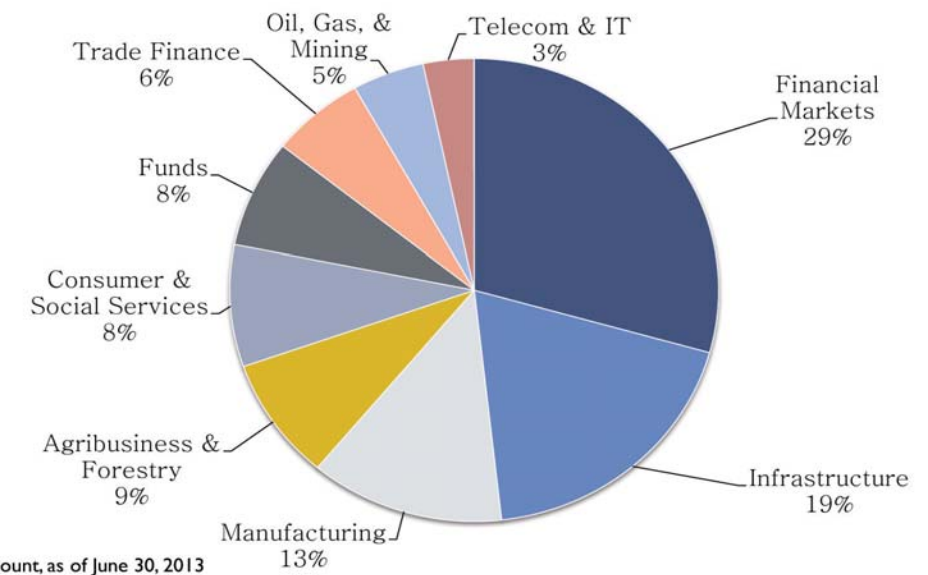
## Advisory Services by Business Line, FY13

Total Program Expenditures: \$231.9 Million



## Committed Portfolio by Industry, FY13

Total Portfolio: \$49.6 Billion

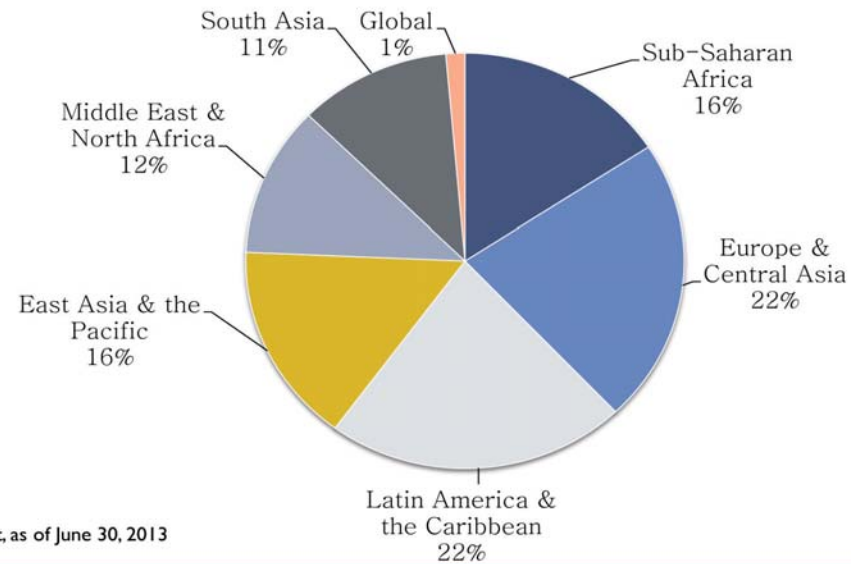


IFC's Own Account, as of June 30, 2013



## Committed Portfolio by Region, FY13

Total Portfolio: \$49.6 Billion



IFC's Own Account, as of June 30, 2013

## IFC in Western Europe, the Middle East, and North Africa



## Standard Setting

### Our Performance Standards

- 1 Assessment and management of environmental and social risks and impacts
- 2 Labor and working conditions
- 3 Resource efficiency and pollution prevention
- 4 Community, health, safety and security
- 5 Land acquisition and involuntary resettlement
- 6 Biodiversity conservation and sustainable management of living natural resources
- 7 Indigenous peoples
- 8 Cultural heritage

## IFC in Europe and Central Asia





## IFC in Asia and the Pacific



## IFC in Sub-Saharan Africa



## IFC in Latin America and the Caribbean



## Meeting the Twin Goals: IFC's Commitment

Ending Extreme Poverty,  
Boosting Shared Prosperity

