1 Introduction

Almost 60 years after its independence from the Franco-Spanish protectorate, did Morocco live up to its expectations of becoming a wealthy and industrious nation? More closely to our day, how well did Morocco's macroeconomic indicator fare during the past decade? This paper contends the answers to this questions, and particularly the second one is contingent on the *institutional wedge*: Morocco's institutions have gone through significant changes during the immediate years following the *great change* of 1983, and though these reforms have been thoroughly documented, their close association with the structural adjustment measures implemented the decade before (1983-1994) have made them unpopular with large swathes of the population, and as a result policymakers predictably shy away from these reforms because they would upset established rents of sorts, even if their long-run effect would be beneficial.

This paper would like to define its terms before it dwells on the economics of potential growth and the policies offered as a benchmark to boost it: In the realm of politics and political coalition-building, the post-1992 consensus as not been shaken even the incumbent monarch ascended the throne in 1999: in the model setting of Roth, Shapley the monarchy has established itself as a veto-player within any potential majority coalition of power-holders. Yet even as it strives to establish a monopoly of political rents, it has to foster a minimum of institutional stability, as pointed out in Acemoglu & al. (2000) and Acemoglu & Robinson (2009) because, among others, Morocco is not as resource-rich as many of its MENA neighbours. The reforms of the 1990s essentially divested some political powers from the centre to new institutions, and that effect may have account for the offshoots of growth recorded in the late 1990s. The fact that growth has stalled since the 2002-2003 may suggest the 90s effect has run its course, and the need for further reforms of substance becomes necessary to boost growth.

Such a discourse comes at odds with current affairs, as indeed Morocco voted in a new constitution in 2011, and a government run primarily by a former outsider to power politics. Yet these changes paradoxically are cosmetic in comparison to the 1990s laws: banking, accounting, the budget law. It is also worth pointing out the post-2011 reforms have not resulted in improved governance indicators, whereas those undertaken two decades earlier did.

Not all institutional reforms laid out in Morocco have had the desired effect, indeed, reforms have had a hectic impact on Morocco's global ranking. The graph below computes a relative score based on the country's ranking and absolute score from the Freedom House (2014) database all the way back in the 1970s; the graph shows a volatile but steady improvement in Morocco's Civil Liberties index, yet not all reforms undertaken since the 1990s for instance translated into improved rankings, nor did the latest constitutional make-up of 2011 result in further improvement in Freedom House's ranking. The relative stagnation in Morocco's Civil Liberties indicator coincides with a similar decline in potential growth around 2003-2004, and it is this paper's contention that institutional variables play a significant role in shaping up potential growth.

The first section provides a general overview of growth in Morocco, using descriptive statistics to illustrate its properties across time intervals, as well as provide stylized facts the second section tries to replicate using the theoretical framework adopted to that effect. It shows institutional *wedges* to be significant in penalizing factors of production and growth. Imperfect institutions distort agents' behaviour toward strategies that result in suboptimal outcomes, in this case the uncertainty created by institutions that foster rent-seeking and/or corruption weighs heavily on growth. The last section concludes to the type of reforms most likely to deliver substantial improvement in growth potential, and provides a forecast of proposed reforms.

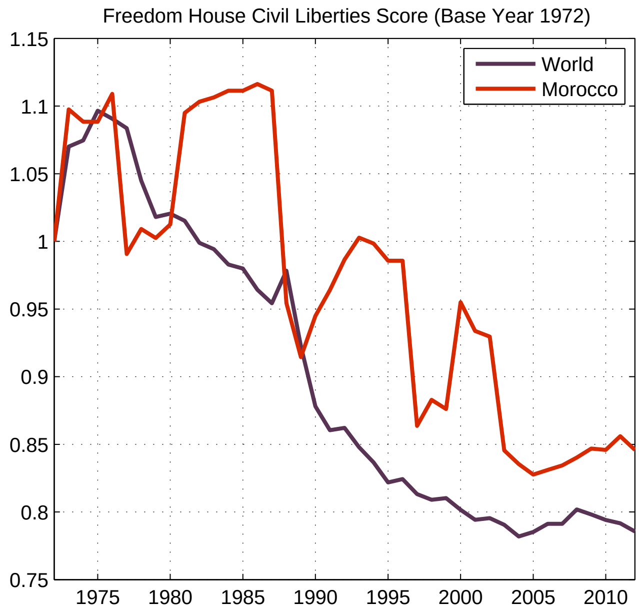

Figure 1: Civil Liberties indicator is sensitive to significant reforms in Morocco, and the 2011 constitution did not result in a substantial change.

2 Growth Phases in Morocco

Volatile output is not peculiar to Morocco: the literature stresses output volatility is common to emerging economies compared to OECD countries, as in Aguiar & Gopinath (2004) Schmitt-Grohé & Uribe (2005) or Garcia-Cicco, Pancrazi & Uribe (2010). Morocco did undergo phases of fluctuations, and the last decade has recorded a steady decline in volatility. However a prerequisite to such analysis is to differentiate between cyclical and trend growth: the former can be ascribed to short-term shocks due to policymaking or global events, whereas the latter describes better the structure of the Moroccan economy. The graph below provides a visual description of the phases potential growth in Morocco underwent since 1960: real GDP has been filtered per Hodrick & Prescott (1997) thus providing an adequate proxy for potential growth levels.

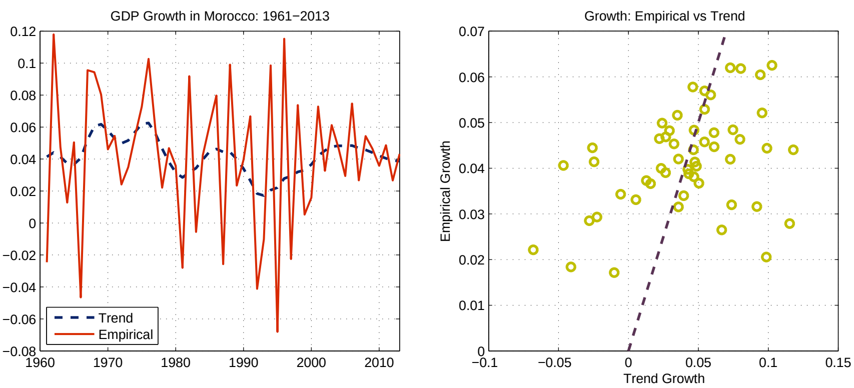

Figure 2: Potential GDP growth in Morocco: 1961-2013

The idea of providing a break-down similar to that of business cycles dating to secular growth is not far-fetched, indeed, it assumes some regularity to institutional changes in Morocco, and this reflects on potential GDP. The table below provides this paper's own break-down compared to that most comprehensive study of low frequency movements in growth, retained in the Cinquantenaire report (2005):

Table 1: Growth Phases in Morocco: 1960-2012

	RDH50	Author	Differences
Phase 1	1961-1972	1960-1969	The shorter time-frame is due to the peak in potential growth observed in 1969. Otherwise the full 'cycle' is completed in 1972.
Phase 2	1973-1981	1969-1972	The comparison is more relevant between RDH50 phase 2 and the author's phase 3 Bis.
Phase 3 Bis	-	1972-1981	The period encompasses the highest level of potential growth to date for the Moroccan economy, as well as the second lowest level, in 1981.
Phase 3	1983-1993	1981-1993	The period coincides with the structural adjustment plan, which has altered significantly the structures of the Moroccan economy, and may account for the properties of the next phase.
Phase 4	1993-2004	1993-2002	This phase coincides with the global *Great Moderation* and shows potential growth to be increasing steadily close to 5%.
Phase 5	-	2002-2013	Given the differences in time-frame, and with the benefit of hindsight, the previous expansionary may have ended around 2002, when potential growth plateaued and started to converge to the lower figure of 4% potential growth.

The differences are due to the fact that this paper was interested in peak-trough cycles within the secular trend; those however do not take away the essential conclusions shared by both: the post-1993 growth potential has been fueled by institutional reforms applied either during the 1983-1993 adjustment process, or in the following years. This would mean the post-2002 slump can therefore be addressed with further reforms in the 1993 spirit.

The table below broadens the scope of our investigation by comparing other aggregates over the same set of phases, and uses long-run indicators, such as 12-year average inflation and its correlation with potential growth. The reason for this is to illustrate the differences between *virtuous* non-inflationary growth, and expenditure-fueled, unsustainable growth. Similarly, unemployment has been historically high enough to suggest maximal levels of growth alone is unlikely to deliver the number of job openings necessary to absorb expected flows of job-seekers. It will be shown later on that the Moroccan economy historically manages to create jobs that match only 47% of the annual growth of the total active population.

Furthermore, in a country like Morocco, inflation is an indicator of poor governance, although such a judgment needs to be qualified in view of policymakers' efforts to alleviate the inflationary effects of global commodity prices on domestic consumers, though with little regard for the virtue of such policies, or indeed with little or no incentive to look for better institutional arrangements, details which will be discussed later on.

Table 2: Macroeconomic Indicators - Morocco

Period	σ_y	$\tilde{y}$	C.Account	CPI	CPI 12y	Unempl.	$\rho_{\pi,y}$
1960-1969	3.573%	4.625%	-1.192%	2.407%	1.572%	12.835%	-.461
1969-1972	.776%	5.542%	-2.059%	.966%	1.164%	15.001%	.943
1972-1981	1.995%	4.836%	-6.502%	7.413%	3.451%	11.033%	-.620
1981-1993	2.602%	3.461%	-5.061%	7.293%	7.794%	14.308%	.523
1993-2002	3.076%	3.059%	-1.407%	3.853%	5.849%	16.890%	-.985
2002-2013	.771%	4.457%	-.556%	1.722%	2.748%	14.442%	.877
1960-2013	2.486%	4.170%	-2.868%	4.445%	4.284%	13.256%	-.553

Engines of growth have indeed changed significantly over the proposed dates, and this is reflected in the set of long-run correlations between potential GDP and other macroeconomic aggregates. However episodes where growth was negatively correlated with inflation translated into lower volatility and improved potential GDP, which qualifies as a harmonious path, as opposed to those periods where inflationary growth ultimately crashed the economy, particularly so in 1981-1983.

We would like to use some results carried out on output volatility as a basis for the intuition this paper wants to investigate: the table below uses some macroeconomic aggregates that usually affect GDP volatility against the same specification with cumulative addition of governance indicators as instrumental variables.

Table 3: Output Volatility & Macroeconomic Aggregates 1972-2012

Variable	OLS	IV1	IV2	IV3
Agriculture	.07	.052	.049	.049
	(.055)	(.046)	(.045)	(.047)
Government Share	-.334	-.91	-.822	-.342
	(.175)	(.681)	(.618)	(.39)
Budget Deficit	.091	.069	.069	.094
	(.029)	(.035)	(.035)	(.024)
Tax Burden	.369	.906	.819	.372
	(.16)	(.652)	(.586)	(.377)
FDIs	-.368	-.281	-.296	-.389
	(.167)	(.164)	(.162)	(.152)
Intercept	.015	.023	.024	.02
	(.015)	(.013)	(.013)	(.013)
R2	.5	.425	.446	.495
R2 Adj.	.428	.343	.367	.423
RMSE	.006	.006	.006	.006
Count	41	41	41	41

- Agriculture's contribution to volatility declines significantly - relative to the estimator's standard error- when governance instruments are included in the model specification. It is worth pointing out the share of agriculture does not seem to play a significant role in shaping up aggregate volatility, and as shown later, is equally unlikely to affect growth potential. It is nonetheless relevant to point out the institutional effects are much more apropos in this case.

- The deficit has a strong impact on output volatility, and strong identification of governance indicators suggest its contribution is sensitive to the type of reforms put in place to contain it, as well as the soundness of enacted fiscal policies.
- Opening up Morocco to global capital flows actually contributes to reduce volatility as the table above shows; more interestingly, the effect is much more significant when institutional elements are taken into account, namely the post-1990s reforms.

3 What is to be done to reach 5%

Table 4: Potential Output & Macroeconomic Aggregates 1972-2012

Variable	OLS	IV1	IV2	IV3
Future Growth	.898	.987	.906	.904
	(.046)	(.075)	(.043)	(.04)
Agriculture	.124	.191	.109	.117
	(.019)	(.051)	(.017)	(.015)
Volatility	-.318	.121	-.282	-.273
	(.053)	(.248)	(.053)	(.051)
Government	-.02	5.663	-.003	.015
	(.085)	(6.035)	(.273)	(.272)
Tax Burden	.104	-5.485	.091	.077
	(.074)	(6.005)	(.267)	(.266)
FDIs	.018	.002	.016	.03
	(.037)	(.068)	(.033)	(.027)
Public Investment	.013	-.000	-.011	-.004
	(.022)	(.027)	(.019)	(.015)
Intercept	-.023	-.066	-.022	-.025
	(.007)	(.025)	(.007)	(.006)
R2	.945	.163	.944	.944
R2 Adj.	.935	.01	.933	.933
RMSE	.003	.01	.003	.003
N	40	40	40	40

- Potential growth is less likely to be triggered by government engineering when governance indicators are taken into account, which is does not reject the idea that government policies cannot improve growth perspectives. It does however suggest genuine institutional reforms are more likely to improve growth potential than any *Grand Design* that entails either an increase in government expenditure and/or investment.
- Foreign investment's virtuous effect on potential growth improves significantly with stronger governance indicator, a result that coincides with the intuitive explanation that foreign investors would be looking for institution that foster property rights and legal contract enforcement.
- The insignificant estimate for public investment in shaping up potential GDP reinforces the assumption made earlier about the need for institutional reforms, and provides the empirical evidence these can deliver growth more than any big government policies with little or no reforms beforehand.

- Good growth potential fosters positive forecast for equally good potential GDP: this means reforms have a strong persistent effect, something that can be observed as the effects of post-1990s reforms carried out all the way to the mid-2000s.

To sum up, the effects of bold reforms that translate into a 5% potential GDP within the next decade implies Morocco permanently improves its ranking by gaining 9 points over the 195 ranked countries, which translates into moving from an average of 56 to 47, and a permanent score between 2 and 3.

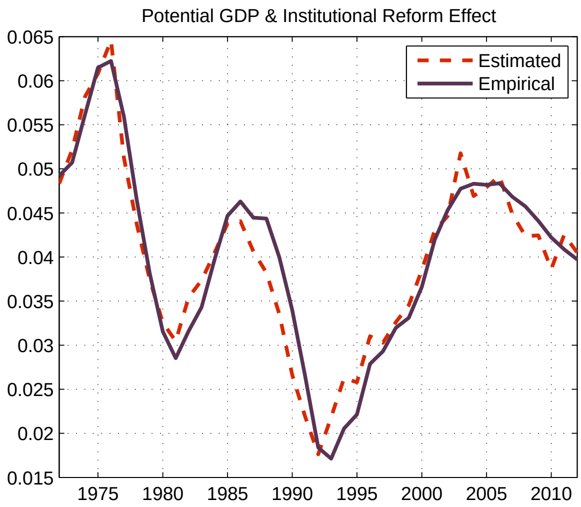

Figure 3: Potential GDP growth in Morocco & Estimated Reform Effect.

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