



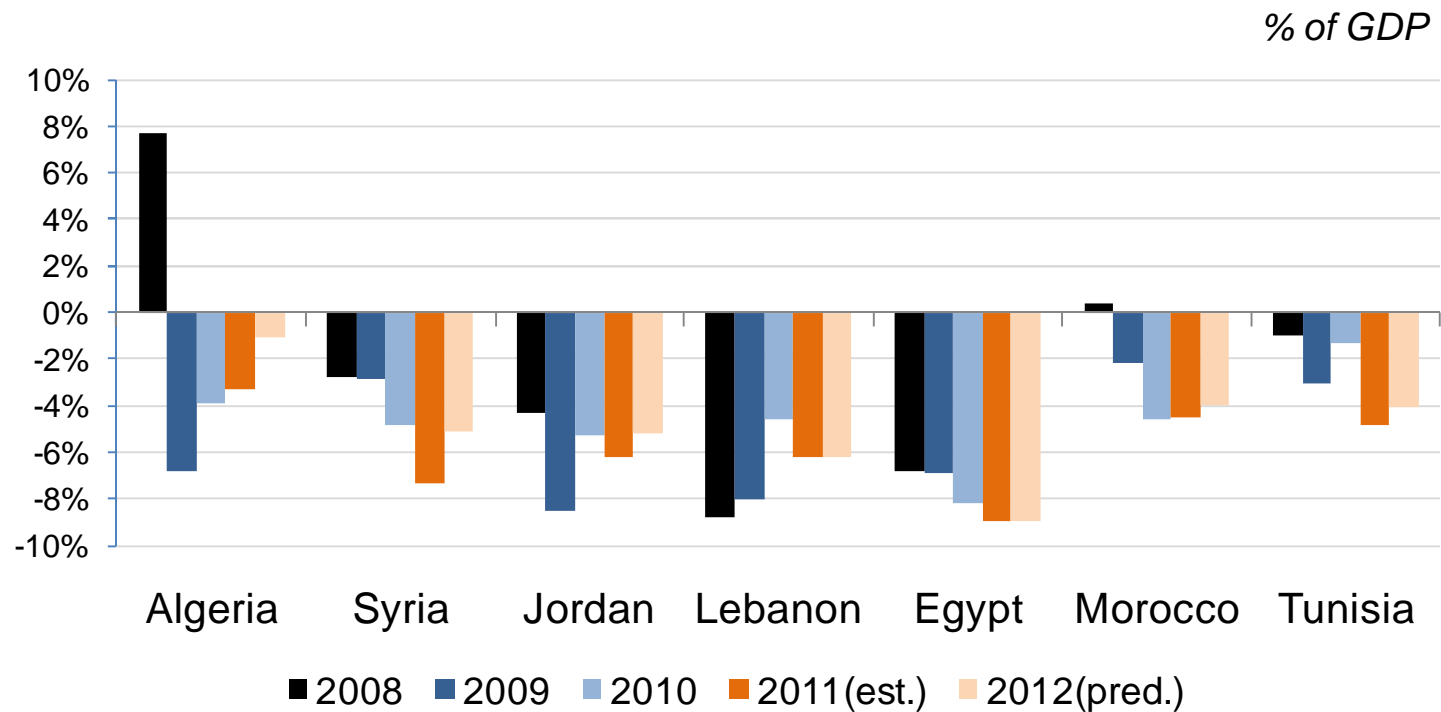
Fiscal Situation & Financial Markets Diagnosis Post Arab Spring

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Fiscal Conditions Post Arab Spring

Fiscal conditions

Fiscal balances generally worsened



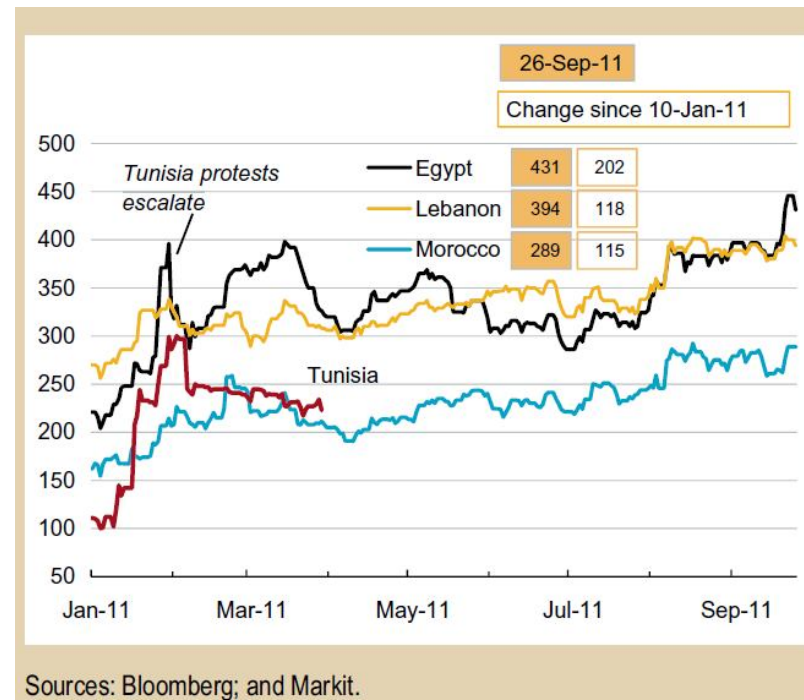
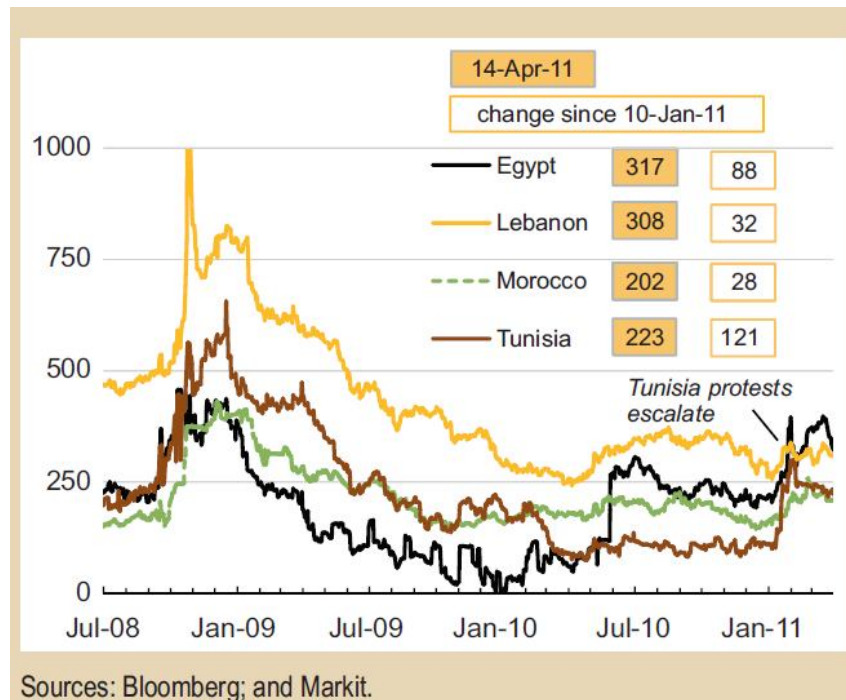
Source: World Bank, *MENA Economic Developments & Prospects*, Sep. 2011

Fiscal conditions

- Pre-crisis improvements in fiscal conditions
 - Budgetary consolidation reduced public debt, i.e. Algeria, Egypt, Lebanon, Morocco, and Tunisia...
 - Worsening conditions by 2008/9 due to the use of public policy to smoothen impact of crisis
- Potential challenges in some countries
 - Some countries have little fiscal space, i.e. Egypt, Jordan, Lebanon
 - Rising food/commodity prices may increase public expenditures through subsidies, i.e. Egypt, Tunisia,...
 - Populist policies in the aftermath of Arab Spring

Fiscal conditions

Higher sovereign bond spreads, basis pts.



Fiscal conditions

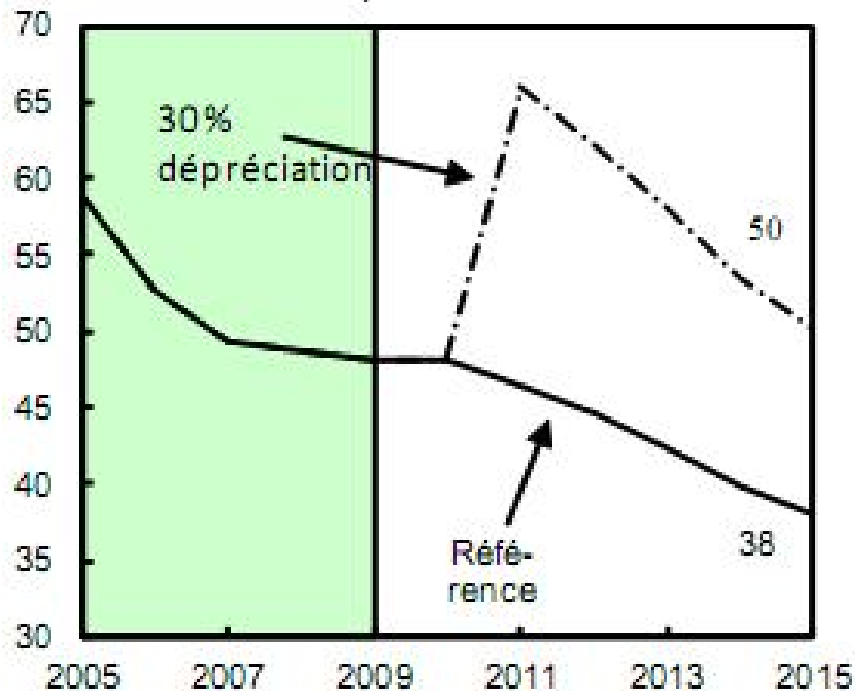
- Sovereign credit spreads jumped in 2010
 - Mostly due to increased risk perceptions
 - Hiked again after Tunisia protests
- 2008/10 downgrades by credit rating agencies
 - First, in 2008/9 as an impact of global crisis
 - Then, following “Arab Spring” in Egypt and Tunisia,

Viability of external debt: Tunisia

- **Resilience and resistance test:**
 - External financing very sensitive to exchange rates
 - Baseline (reference) scenario: Continued (trend) drop in external debt in Tunisia
 - Compared w/ scenario of 30% depreciation of dinar

Viability of external debt: Tunisia

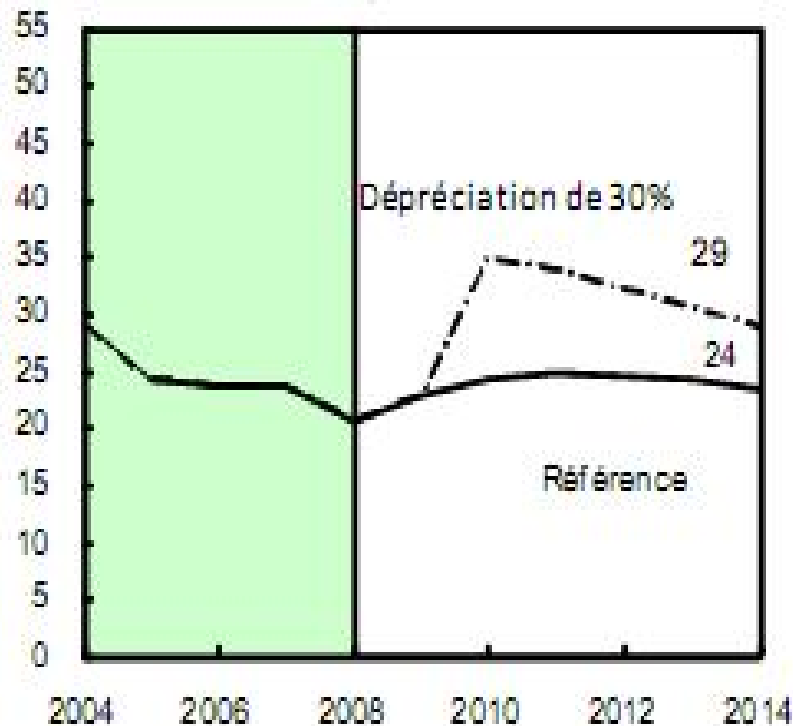
External debt (% of GDP)



- Under baseline scenario
 - Ext. debt to drop to 38% of GDP by 2015
- Under 30% dep. Scenario
 - Ext. debt to be higher by 15 to 12% between 2010 and 2015

Viability of external debt: Morocco

External debt (% of GDP)

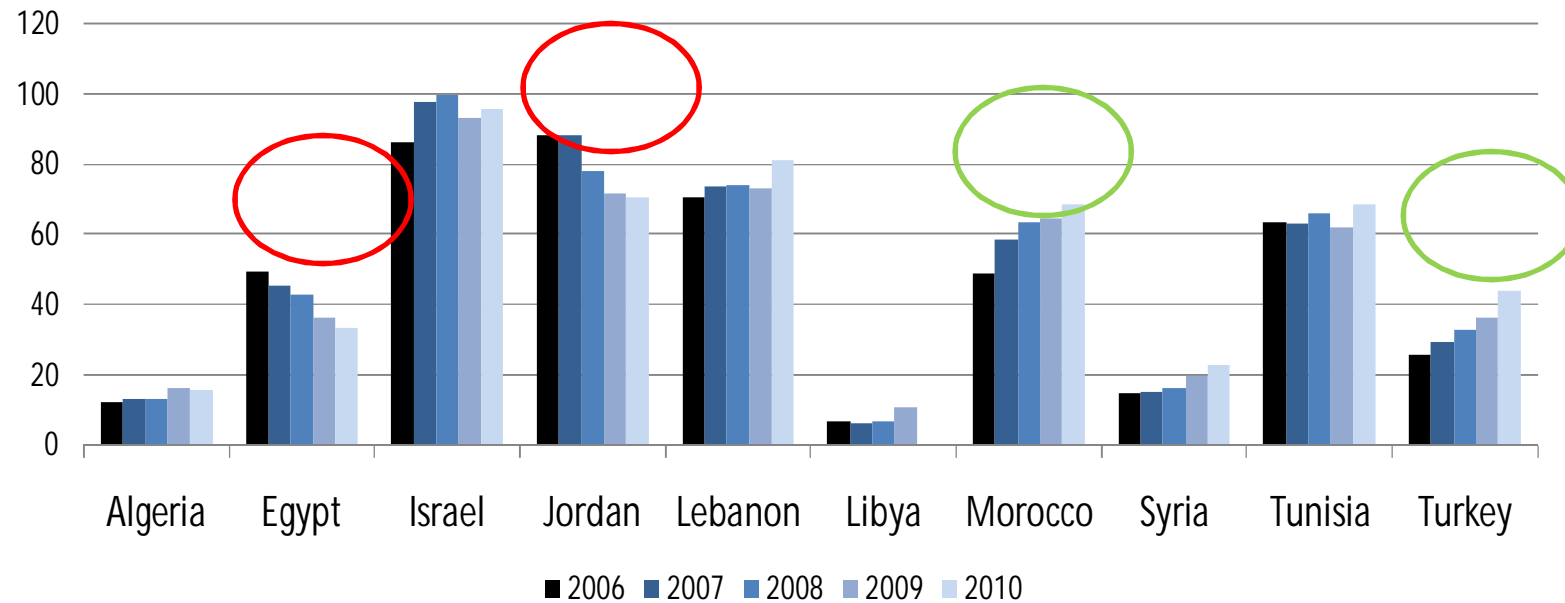


- Much milder response in Morocco
 - Depreciation to lead to 5 to 8% hike in external financing only

Banking Sector Conditions & Capital Markets Contagion

Banking sector

Credit to private sector, % of GDP



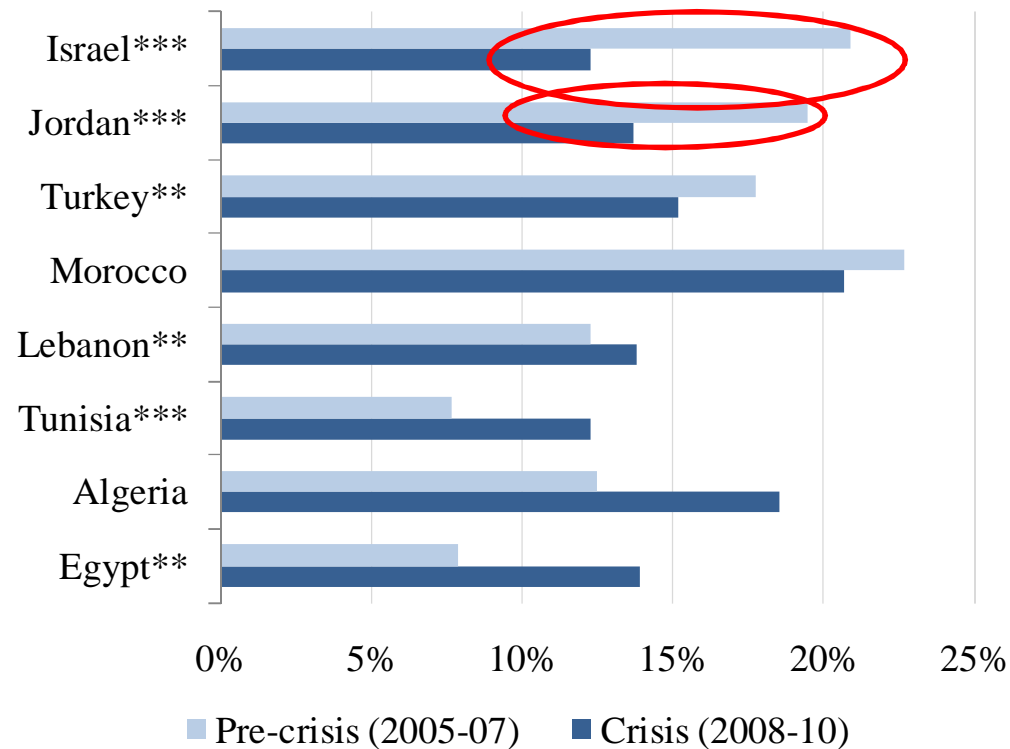
Source: World Bank WDI

Banking sector

- Availability of private credit diminished in:
 - **Egypt:** Public loans & debt doubled since '07, accounting for 40% in '10
 - **Jordan:** Reduced intermediation, w/ reserves accounting for ~20% of total assets in '10
- Private credit became more available in:
 - **Morocco:** Rising asset prices (wealth effect through increased collateral value) & new credit bureau in '09
 - **Turkey:** Lower real interest rates and new mortgage law (enacted in Feb. '07)

Banking sector

Return on equity, %



- Substantial drops in profits (RoE) in more dev. markets
 - IL, JO, & TR
- Gains in
 - LB, TN, & EG

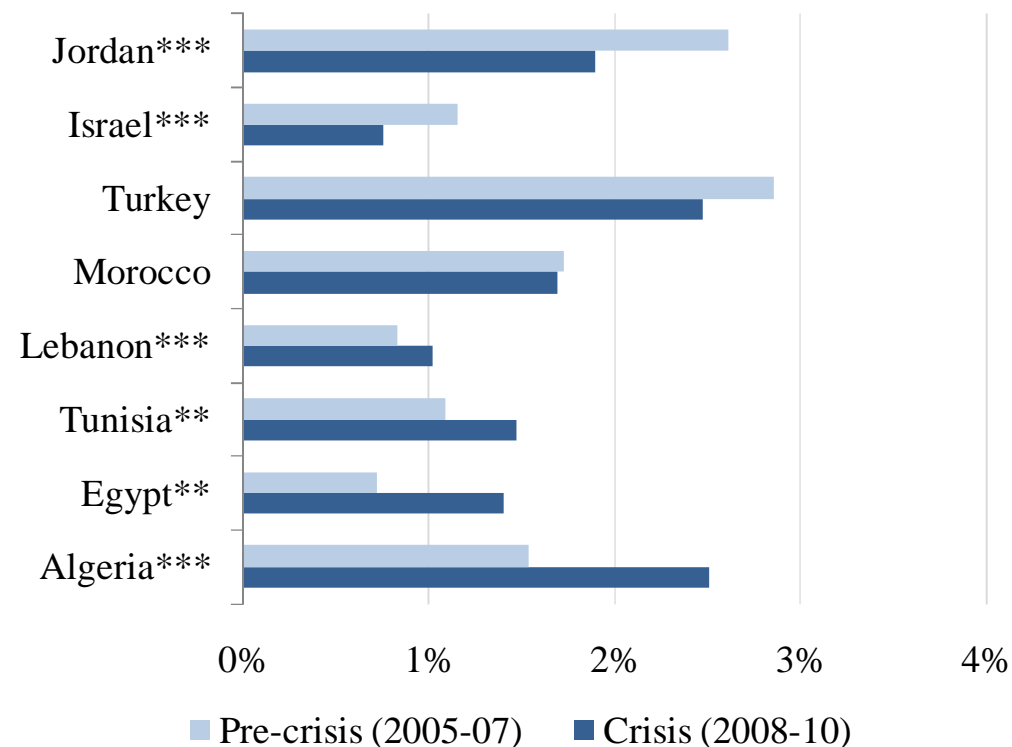
Source: Bankscope

Note: ***, **, * stand for significance at 1%, 5%, and 10% according to Wilcoxon-Mann-Whitney tests

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Banking sector

Return on assets, %



- Similar results for return on assets (RoA)
- Drops in dev. markets
 - IL & JO
- Gains in
 - LB, TN, EG, & DZ

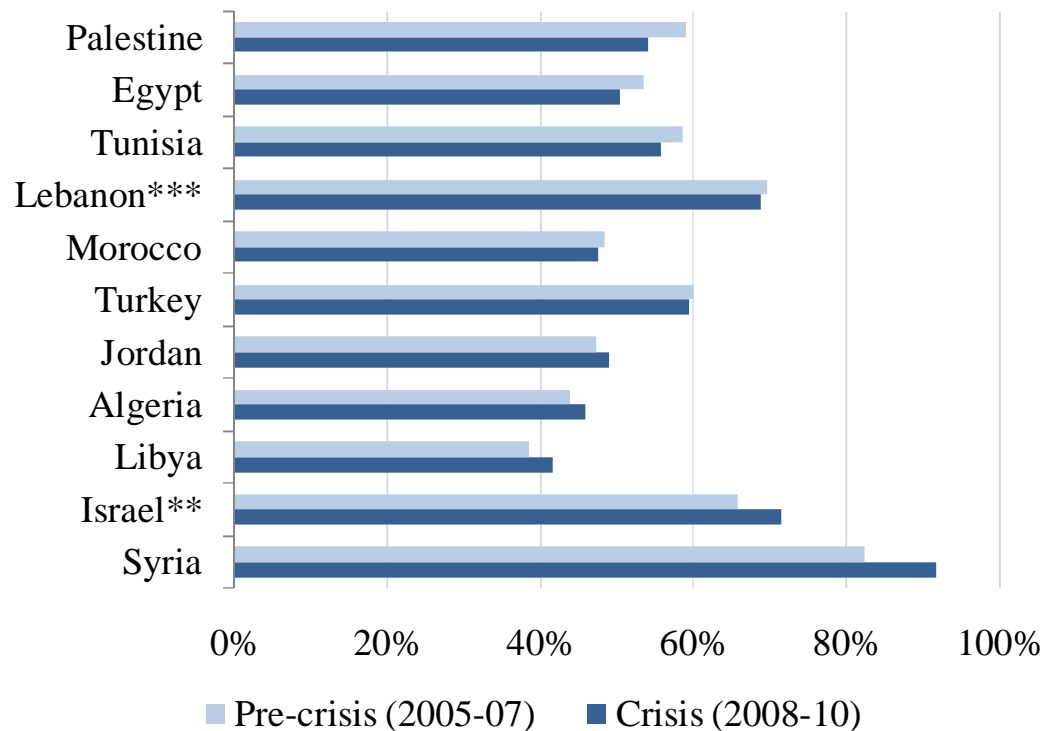
Source: Bankscope

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Banking sector

Cost-to-income ratio, %



- Cost-efficiencies are also similar
- Improvement:
 - LB (slight)
- Worsening:
 - IL

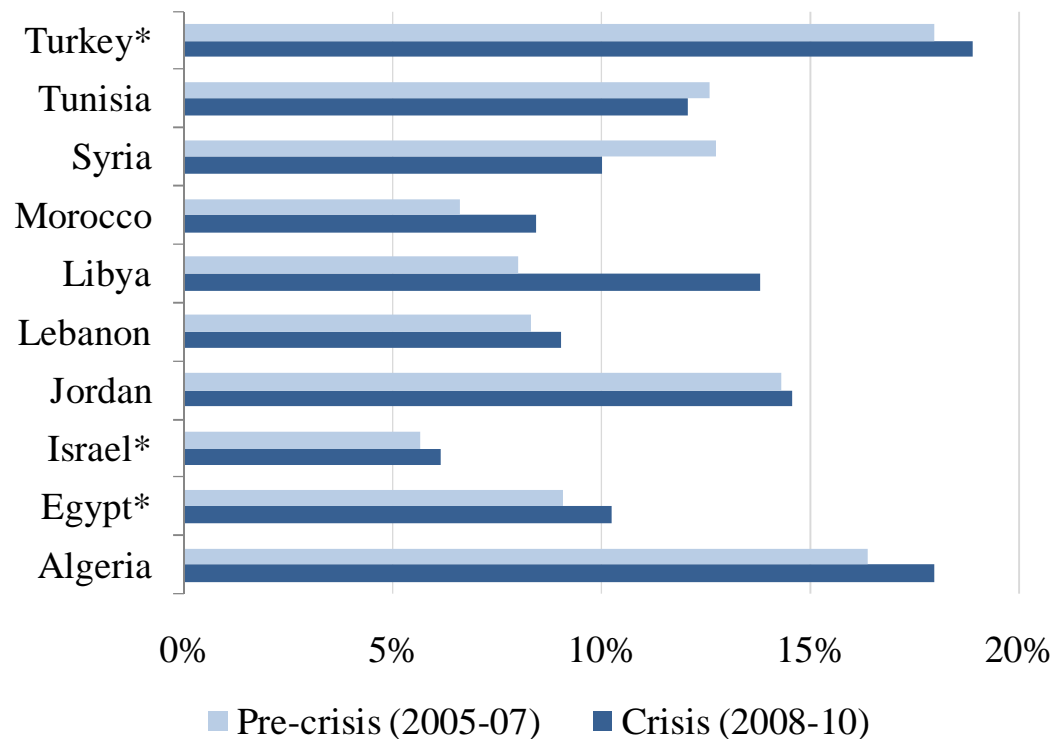
Source: Bankscope

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Banking sector

Capital ratio (equity/assets), %



- Slight capital increases
– EG & TR
- Otherwise changes are not significant

Source: Bankscope

Note: ***, **, * stand for significance at 1%, 5%, and 10% according to Wilcoxon-Mann-Whitney tests

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Banking sector

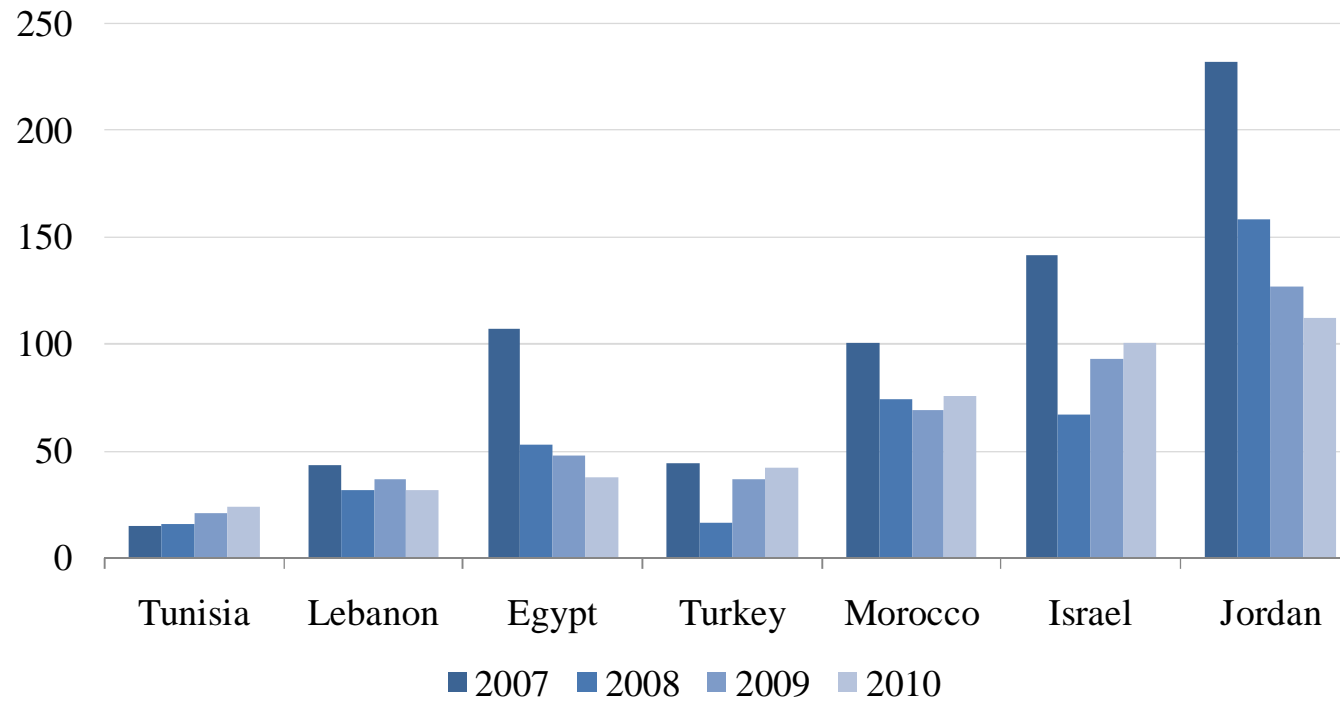
- Results:
 - Profits in more Western-oriented economies adversely impacted, i.e. Israel, Turkey, and Jordan
 - Profits improving (possibly in line w/ long-term tendencies) in Egypt, Tunisia, and Lebanon
 - Morocco's banking system has not been impacted
 - Too early to tell whether Arab Spring had any impact on banking sector at all due to data unavailability

Capital markets

- Did the “Arab Spring” have an impact on stock markets?
 - Did the regional inter-linkages grow or shrink in 2011?
- How did the stock markets respond to conditions in US or EU?
 - Inter-linkages w/ commodities (oil, grains)
 - Is there a contagion effect?

Capital markets

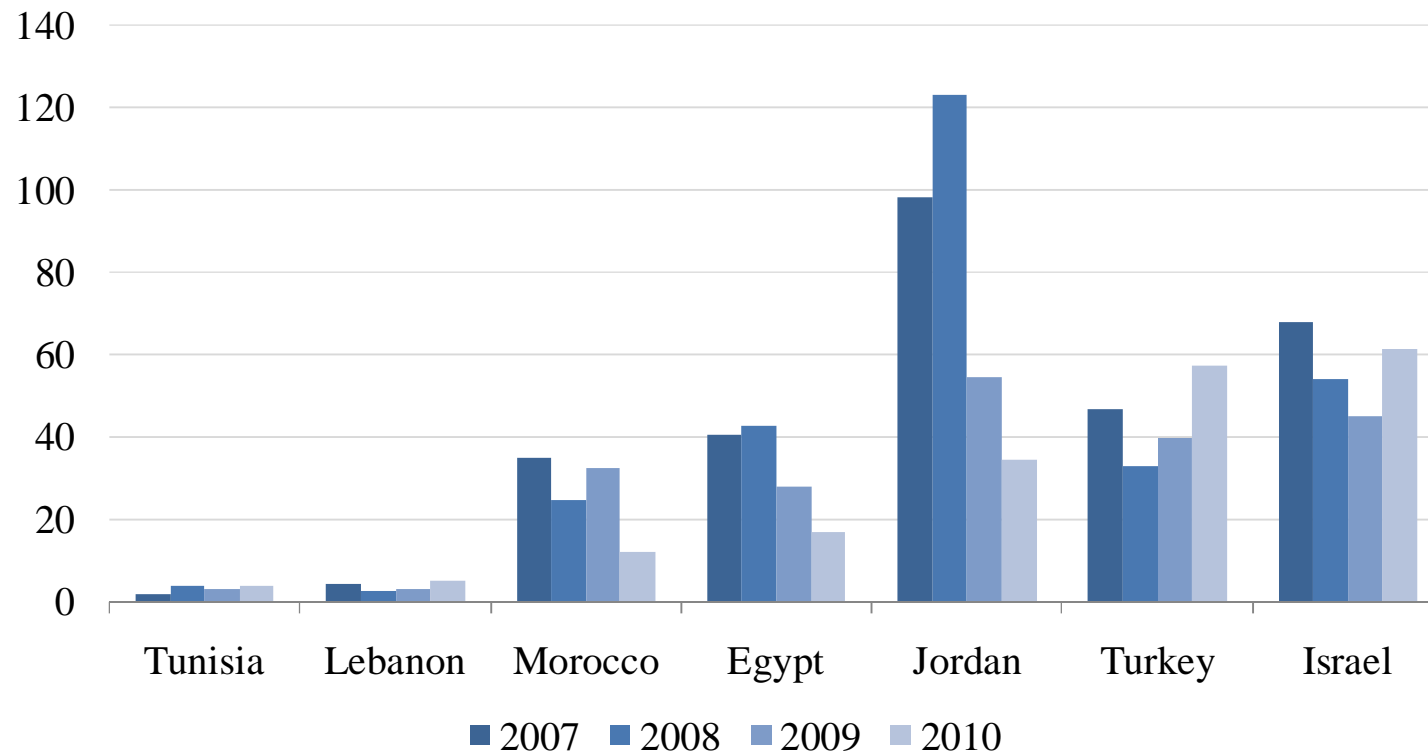
Market capitalization, % of GDP



Source: World Bank WDI

Capital markets

Stocks traded (volume), % of GDP

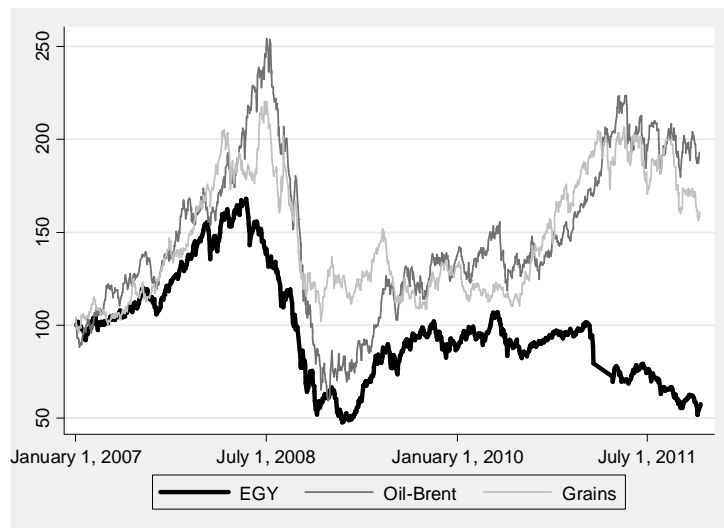
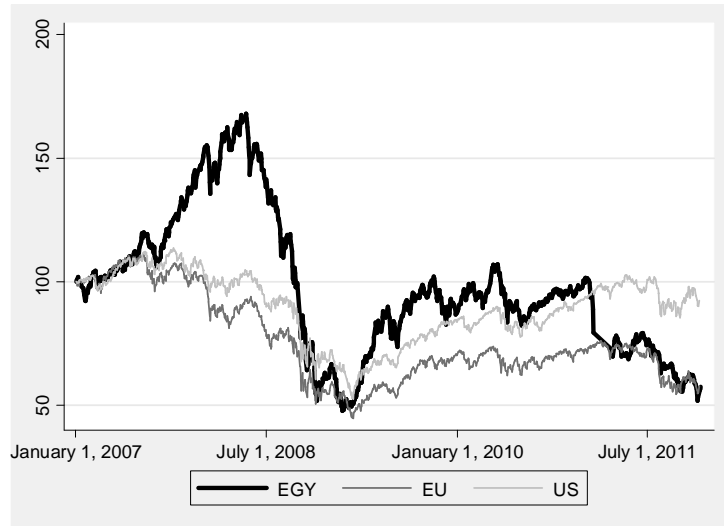


Source: World Bank WDI

Capital markets

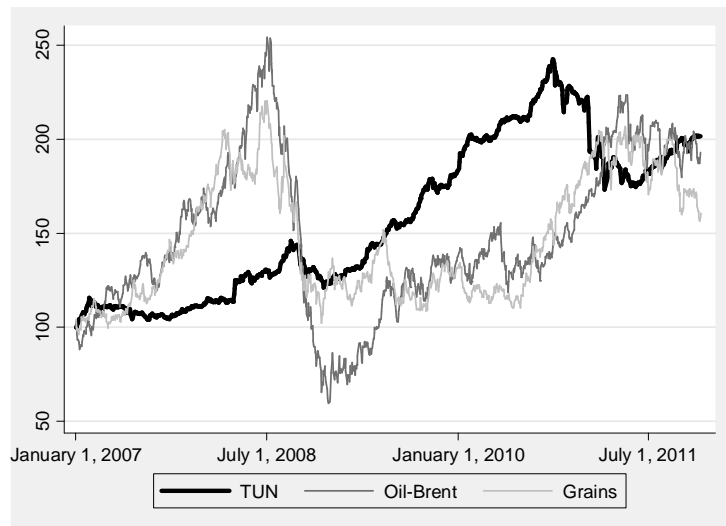
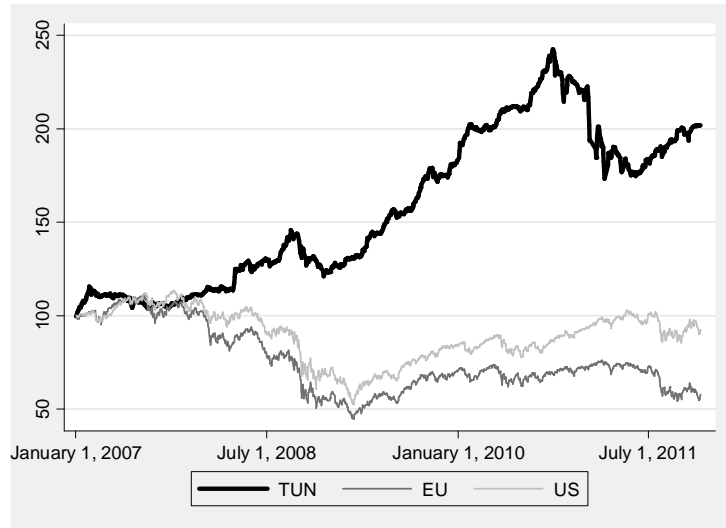
- MED-11 markets have been impacted
 - Continued drops in Egypt & Jordan
 - Israel & Turkey rebounding in '09 onwards
 - Substantial drop in trading in Morocco in '10
 - Lebanese and Tunisian markets remain small
- Are these due to crisis or other factors?
 - Arab Spring?
 - Other regional stress?
 - Commodity prices?

Capital markets



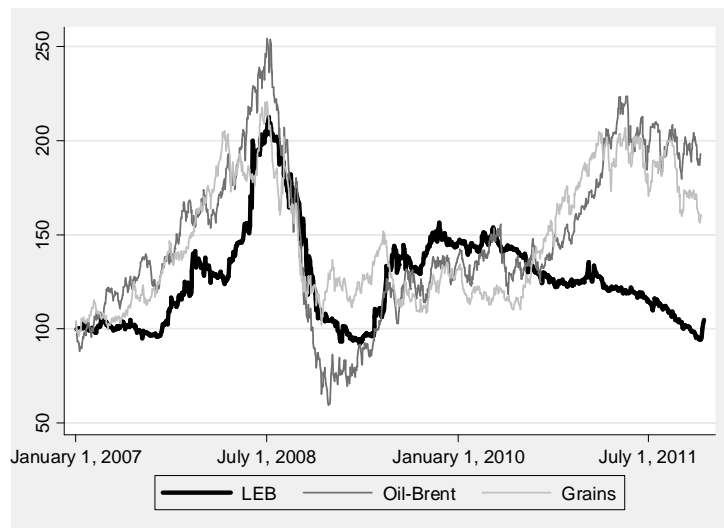
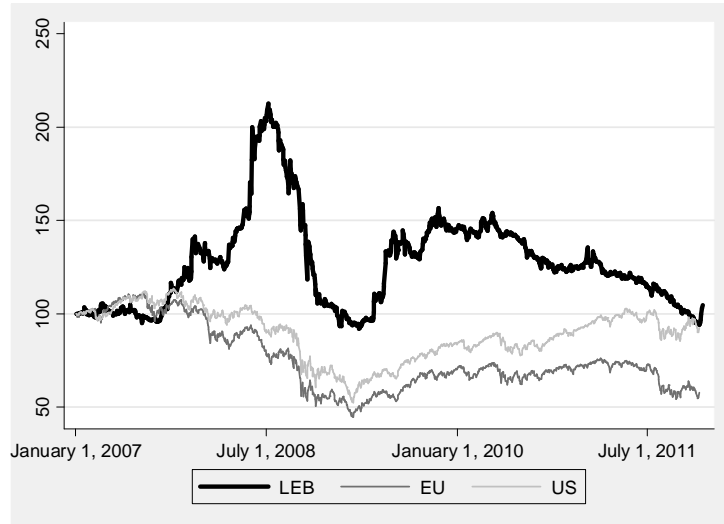
- Egypt (EGX 30) follows commodities pre-2011
 - Steep rise after merger of Cairo & Alexandria SEs in early-'08
 - May '08 decision led to steep increases in fuel prices & collapse of Egyptian SE
 - Continued drop in Sep. '08 due to global crisis
- Clear losses amidst "Arab Spring" after Jan. 2011
 - 10% loss on 27 Jan. '11
 - Exchange shut-down for two months

Capital markets



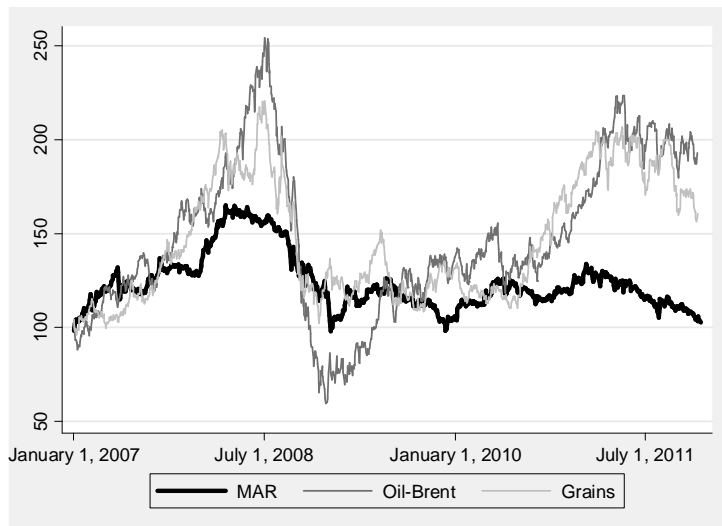
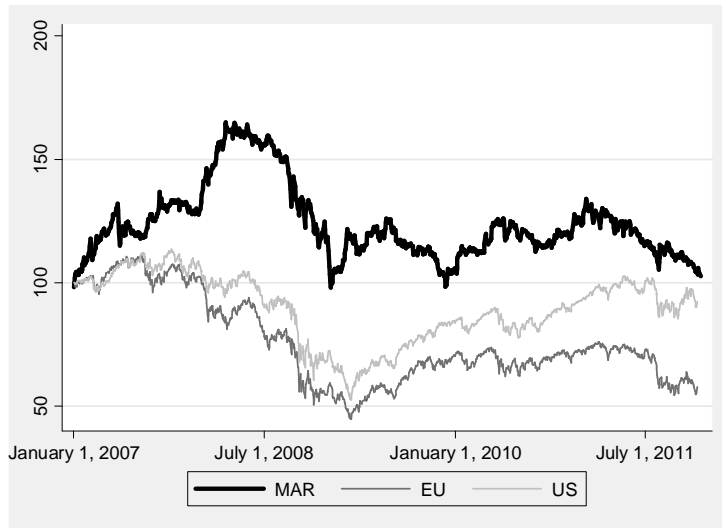
- For Tunisia's stock market continued (Tunindex) upward trend
 - Smaller w/ market cap. of ~20% of GDP in 2010
 - Dominated by banks (~70% of its market cap.)
- Losses amidst "Arab Spring"
 - Accumulated 17% losses between in 7 Jan. and 2 Feb. 2011

Capital markets



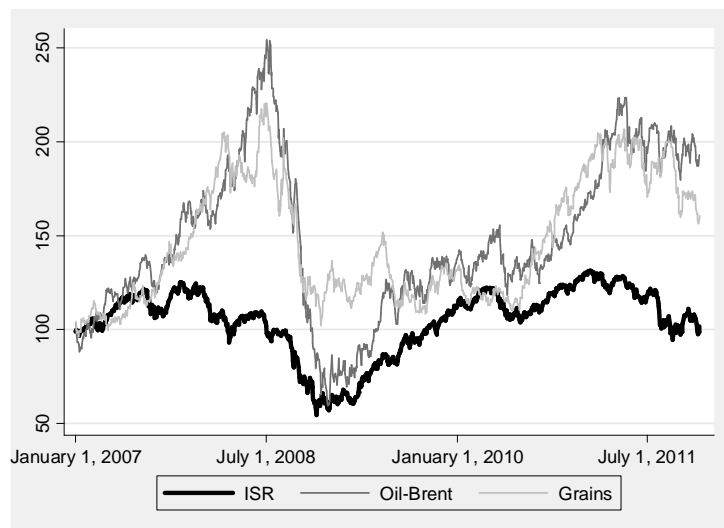
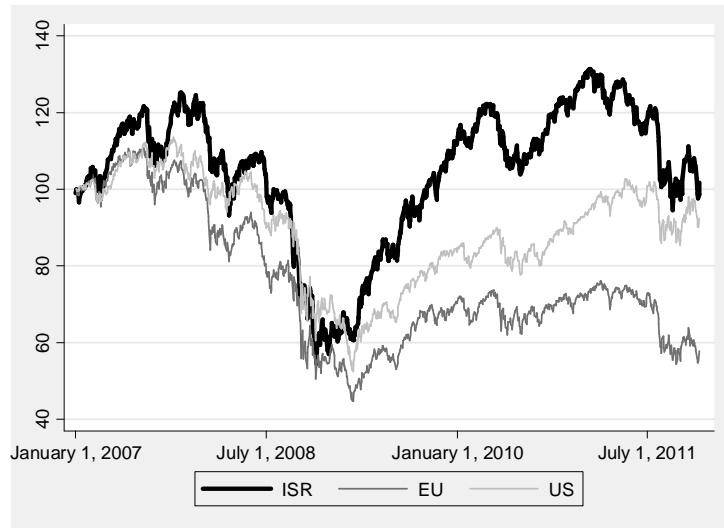
- Lebanon's stock market (MSCI-based index) follows commodities markets pre-2011
 - Relatively sizeable market cap. of ~30% of GDP in 2010
 - Outperforms EU/US for almost all of 2007-2011!
- Despite persistent but gradual losses after 2010
 - Does not appear to be sensitive to “Arab Spring”

Capital markets



- Morocco's (MASI) stock market also outperforms EU/US markets
 - Some weak corr. w/ commodities pre-08
- Relatively stable performance despite crisis
 - Losses in 2011, possibly due to Arab Spring

Capital markets



- Israel (TA-100) and Turkey (ISE-100) are more in-synch with EU/US markets
 - In later years, they clearly over-perform
 - Similar to some of the other emerging economies

Capital markets: Interdependence

Performance of stock indices, 2007-2011

Index	Beg. 2007	Max. value (val. & date)		Min. value (val. & date)		Nov. 28, 2011
<i>Egypt (EGX-30)</i>	100	168.0	05/05/08	47.7	05/02/09	57.5
<i>Israel (TA-100)</i>	100	132.8	16/01/11	55.1	23/11/08	102.8
<i>Jordan (ASE)</i>	100	166.7	19/06/08	63.5	10/10/11	65.5
<i>Lebanon (MSCI)</i>	100	212.5	07/07/08	92.0	25/03/09	104.7
<i>Morocco (MASI)</i>	100	168.0	13/03/08	99.8	08/01/09	104.6
<i>Palestine (Al Quds)</i>	100	126.0	21/04/08	69.5	26/11/08	..
<i>Syria (DWX)</i>	100	175.3	16/12/10	85.8	28/11/11	85.8
<i>Tunisia (Tunindex)</i>	100	242.9	30/09/10	100.0	02/01/07	202.0
<i>Turkey (ISE-100)</i>	100	183.4	09/11/10	54.4	20/11/08	134.0
<i>EU (Euronext-100)</i>	100	101.5	16/07/07	88.3	09/03/09	92.0
<i>US (Dow-Jones)</i>	100	101.3	09/10/07	93.2	09/03/09	99.2

Capital markets: Interdependence

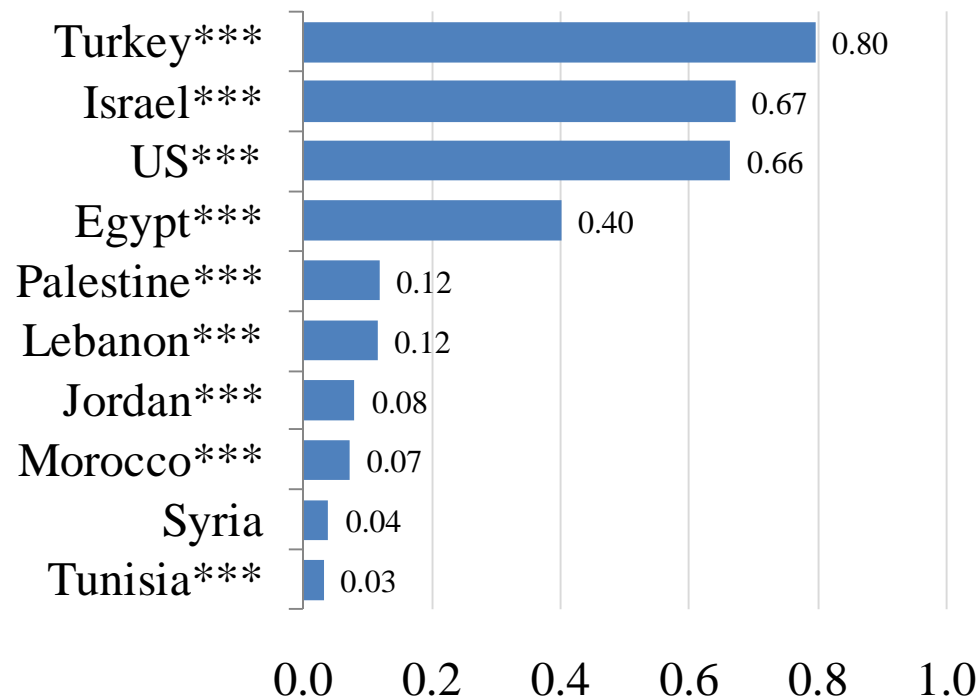
- Three periods considered:
 - **Pre-crisis:** Jan. '07 - Sep. '08
 - **Post-crisis:** Sep. '08 - Jan. '11
 - **Arab-Spring:** Jan. '11 - Nov. '11
 - **All periods:** Jan. '07 - Nov. '11
- Crisis assumed to begin on 30 Aug. '08
 - Dow-Jones & Euronext peaked on 15 Jul. '08
 - Lehman bankruptcy on 15 Sep. '08
- Arab Spring assumed to begin on 11 Jan. '11
 - Tunisian gov't overthrow on 14 Jan. '11

Capital markets: Interdependence

- Consider interdep. of MED-11 indices w/
 - EU (Euronext 100)
 - US (Dow Jones Ind. Avg.)
- Also, check interdep. w/ oil & grain prices
 - Potentially contradicting impact
 - Commodities could be proxies for global activity (high commodity price → push stock markets up)
 - Could also proxy income shocks (high commodity price → less income to spend → push markets down)
- Also, compare with Egypt in last period
 - Egypt most liquid & most impacted market
 - Check the impact of Arab Spring on others

Capital markets: Interdependence

- Intdep. w/ EU, all periods

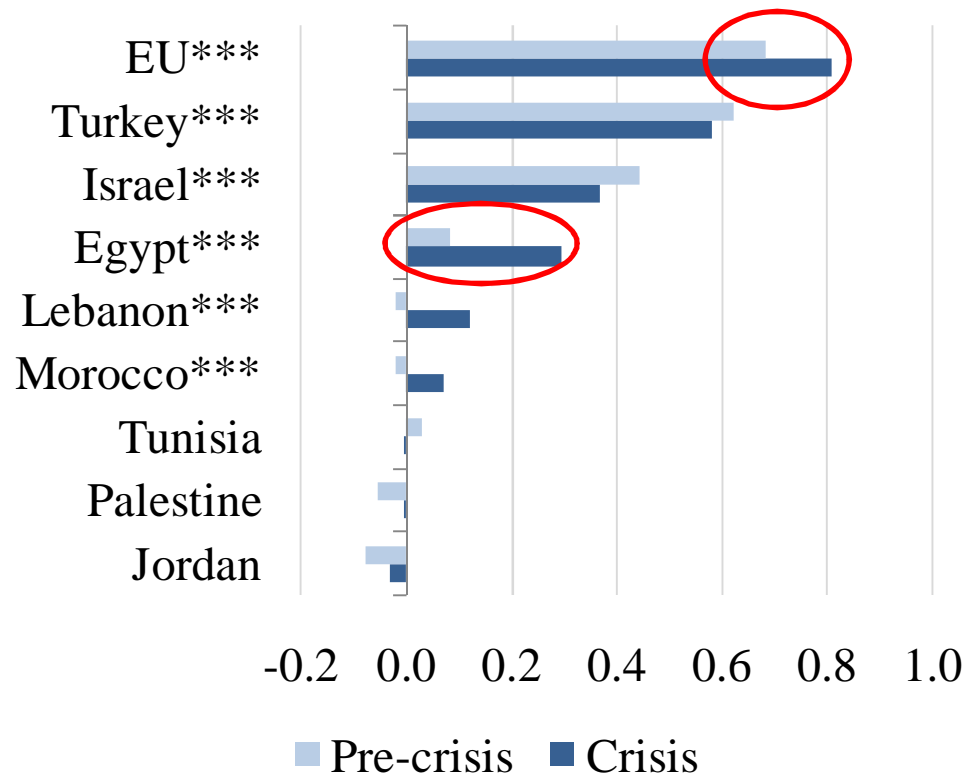


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- TR & IL has the highest correlation w/ EU
 - Followed by US
- Among MED-11
 - EG also most sensitive to EU
 - Only Syria not related

Capital markets: Interdependence

- Changing intdep. w/ US

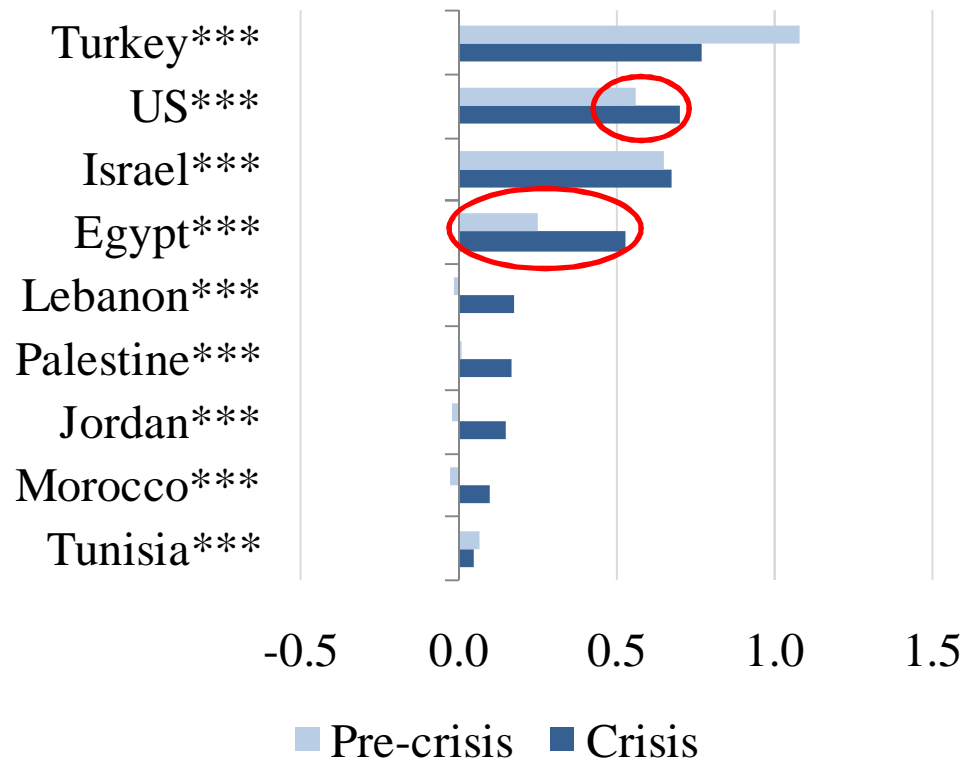


- Contagion from US to
 - EU & EG
 - Less so in LB & MA
- IL & TR appear to decouple from US
 - Less indep. during crisis

Note: ***, **, * stand for significance at 1%, 5%, and 10% for post-crisis

Capital markets: Interdependence

- Changing intdep. w/ EU

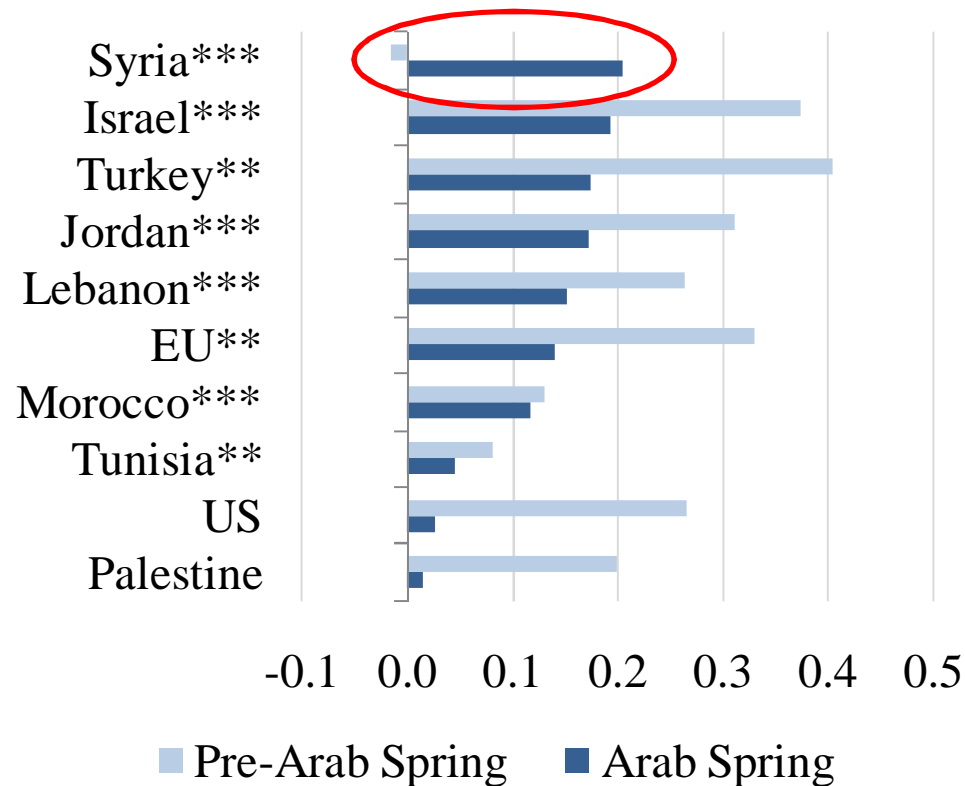


- Contagion from EU in
 - US & EG
 - Less so in other MED-11 countries exc. TR & IL
- TR appears to decouple
 - Less indep. during crisis
 - Same for IL

Note: ***, **, * stand for significance at 1%, 5%, and 10% for post-crisis

Capital markets: Interdependence

- Changing intdep. w/ Egypt



- Substantial contagion to SY during “Arab-Spring”!
- Others less correlated!

Note: ***, **, * stand for significance at 1%, 5%, and 10% for post-crisis

Capital markets: Interdependence

- Results
 - Capital markets in EU, US, Turkey, Israel, and Egypt have relatively high degree of interdependence
 - Income effects through higher commodity prices do not dominate
 - Some contagion to Egypt during crisis, implying increased interdependence
 - Turkey & Israel appear to have decoupled
 - “Arab Spring” had limited impact; only on Syria

Thank you