Stage	Generic popq rA	Specific popq %rax
Fetch	$icode : ifun \leftarrow M_1[PC]$	$icode : ifun \leftarrow M_1[0x02c] = b : 0$
	$rA : rB \leftarrow M_1[PC + 1]$	$rA : rB \leftarrow M_1[0x02d] = 0 : f$
	$valP \leftarrow PC + 2$	$valP \leftarrow 0x02c + 2 = 0x02e$
Decode	$valA \leftarrow R[\%rsp]$	$valA \leftarrow R[\%rsp] = 120$
	$valB \leftarrow R[\%rsp]$	$valB \leftarrow R[\%rsp] = 120$
Execute	$valE \leftarrow valB + 8$	$valE \leftarrow 120 + 8 = 128$
Memory	$valM \leftarrow M_8[valA]$	$valM \leftarrow M_8[120] = 9$
Write back	$R[\%rsp] \leftarrow valE$	$R[\%rsp] \leftarrow 128$
	$R[rA] \leftarrow valM$	$R[\%rax] \leftarrow 9$
PC update	$PC \leftarrow valP$	$PC \leftarrow 0x02f$

The instruction sets %rax to 9, sets %rsp to 128, and increments the PC by 2.